THE CHARTERED SURVEYOR

THE JOURNAL OF

THE ROYAL INSTITUTION OF CHARTERED SURVEYORS

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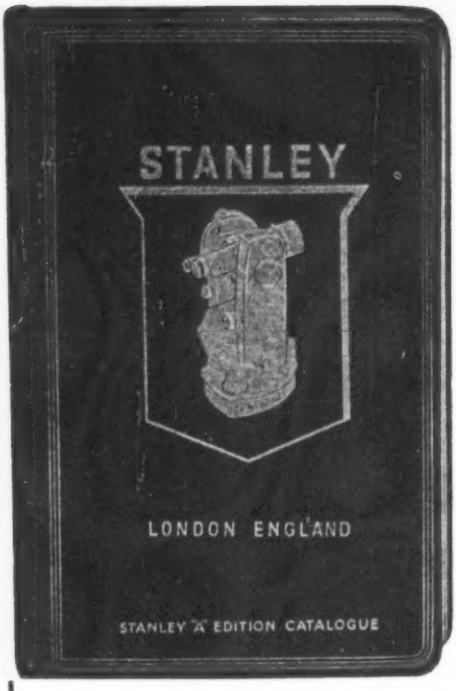
DECEMBER 1960



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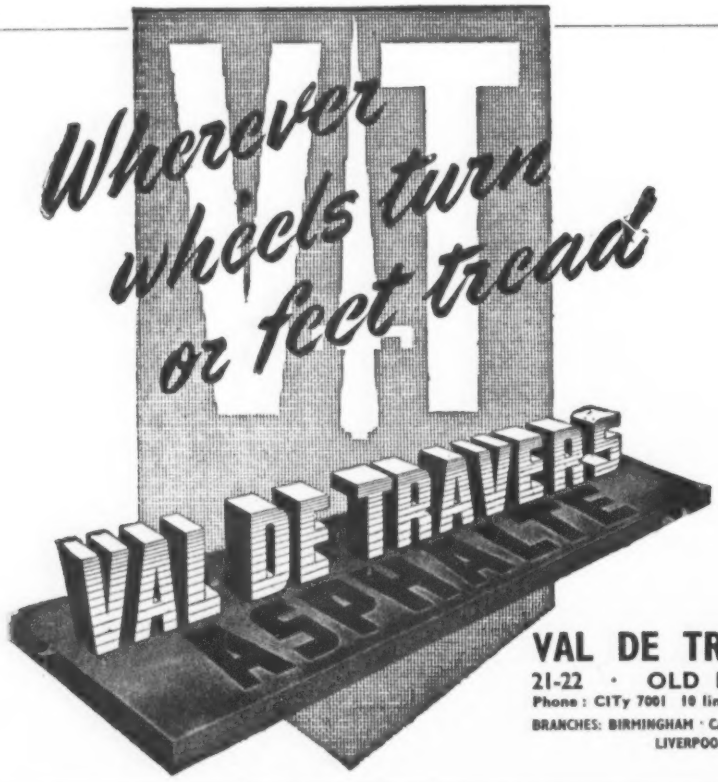

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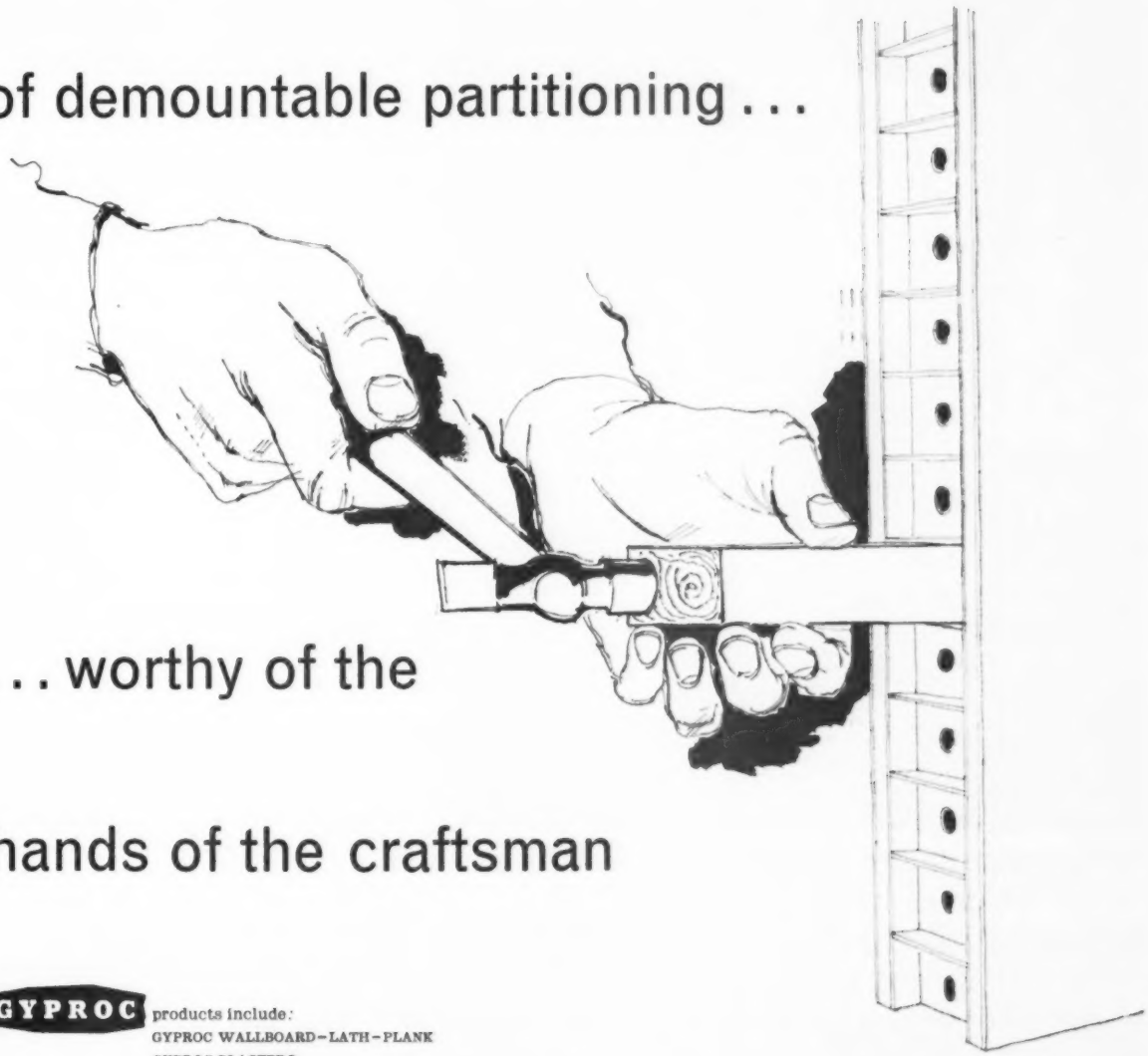

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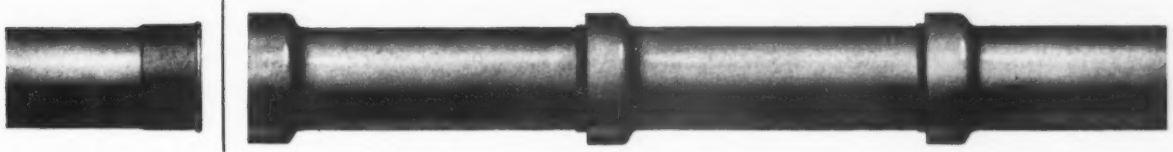

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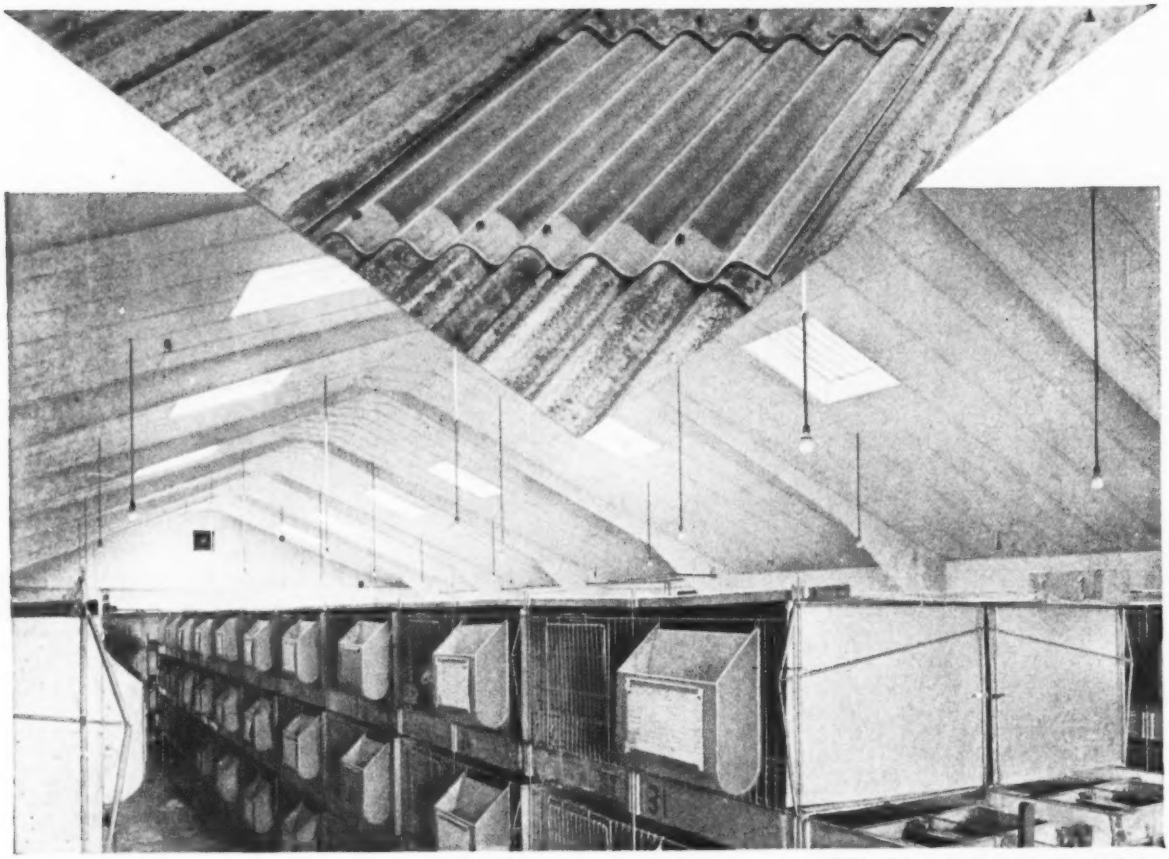

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FORTHCOMING ARRANGEMENTS

Institution Meetings

1960

5th December
5.45 p.m.
'Off-Street Parking'
by E. H. Doubleday, O.B.E. (Fellow), P.P.T.P.I., M.I.MUN.E.

15th December
5.45 p.m.
'Surveying in Northern Australia'
by Major A. G. Bomford, M.A. (Professional Associate), R.E.

1961

2nd January
5.45 p.m.
'Fire Precautions in Buildings'
by F. W. Delve, C.B.E., M.I.FIRE.E.

23rd January
5.45 p.m.
'Some Reflections on Property Development'
by E. C. Uren

6th February
5.45 p.m.
'Share Valuations: Why and How?'
by T. A. Hamilton Baynes, M.A., F.C.A.

Junior Organisation

1960

8th December
6.15 p.m.
'The Modern Shop'
by G. A. Watts, O.B.E.

14th December
6.30 for 7.0 p.m.
Quantity Surveyors Christmas Dinner
at the "Windsor Castle," Victoria.

1961

5th January
6.15 p.m.
'The Channel Tunnel'
by H. J. B. Harding, B.SC., M.I.C.E.

VOL. 93 NO. 6

CONTENTS

Institution

277 Editorial Notes
279 'Presidential Address' by J. D. Trustram Eve, (Fellow) F.L.A.S., F.A.I.,
285 'Ninth International Congress of Photogrammetry, London 1960,' by Brig. A. H. Dowson, A.D.C., O.B.E., B.A. (Fellow)
288 Institution Notices
288 Professional Charges
289 Institution Meetings
290 Junior Organisation
290 Fédération Nationale de Métreurs—Vérificateurs Patentés: Report of visit by William James (Fellow)
290 Branch Notices
291 Personal Announcements
292 Examiners' Reports

Agriculture and Forestry

298 'Dune Reclamation at Braunton Burrows' by C. Kidson, B.A., PH.D., and A. P. Carr, B.SC., F.R.G.S.
303 'Improving a Hill Farm': Discussion
305 Agricultural Land Tribunals
306 Agriculture Notices

Valuation, Housing and Planning

307 'The Changing Pattern of Living': Discussion
309 Rating Surveyor's Diary
312 Rating Diploma Holders Section

Building and Quantity Surveying

313 'Future Practice and Procedure in Quantity Surveying' by K. K. Dale (Fellow)
317 'Practical Training and Post-Graduate Training for the Quantity Surveyor,' by W. James (Fellow) and E. N. Harris, A.F.C. (Fellow)
319 Quantity Surveyors Committee: Extracts from the Minutes
320 Announcements and Publications

Land Surveying and Mining Surveying

321 'Surveying in Northern Australia,' by Major A. G. Bomford, M.A. (Professional Associate), R.E.
324 Mining Meetings at the Annual Conference
325 'The Education and Training of Mining Surveyors': Discussion

Parliamentary and General

327 Royal Commission on Local Government in Greater London, 1957-60
328 'The Building Societies Act, 1960,' by D. E. Taylor (Fellow), F.A.I.
329 'Caravan Sites and Control of Development Act, 1960,' by K. E. B. Glenny, O.B.E. (Fellow)
333 'Legal Notes,' by H. F. Bidder (Associate)
335 Statutory Instruments
335 Library Notes
336 Correspondence from Members
337 New Members of the Institution

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THE CHARTERED SURVEYOR

The Journal of

THE ROYAL INSTITUTION OF CHARTERED SURVEYORS

VOL. 93 DECEMBER, 1960 No. 6

Editorial Notes

Sessional Programme

Off-Street Parking

" American traffic surveys show that during the afternoon of a normal day in the business district of an average community, 90 per cent. of the cars are parked—either on or off the street—and only 10 per cent. moving ; furthermore, of this 10 per cent., about one-third are looking for a place to park." This is one among many startling facts from figures quoted in Mr. E. H. Doubleday's paper on " Off-Street Parking." Mr. Doubleday will be talking about this topical and growing problem at the ordinary general meeting to be held on Monday, 5th December, 1960. The meeting is sponsored by the Middlesex and Urban Essex Branch.

Surveying in Northern Australia

This volume of *The Chartered Surveyor* has discussed aspects of surveying in places as far distant from us and from each other as Fiji, Lake Nyasa and Bengal. This issue takes us to Northern Australia. Major A. G. Bomford, M.A. (Professional Associate), R.E., has written a paper on " Surveying in Northern Australia " which is published on page 321 of this issue and which he will present at the general meeting of land surveyors to be held on Thursday, 15th December, 1960. Major Bomford will illustrate his paper with coloured slides.

Fire Precautions in Buildings

At the first ordinary general meeting of 1961, Mr. F. W. Delve, C.B.E., M.I.FIRE.E., will speak on " Fire Precautions in Buildings." Mr. Delve is Chief Fire Officer of the London Fire Brigade. The meeting will be held on 2nd January, 1961.

The Queen's Speech

There were few surprises in the Queen's speech which was delivered to both Houses of Parliament on 1st November, 1960 : practically all the legislation outlined having already been promulgated by the various Ministers responsible.

One of the most important Bills which is to be introduced during the session is the one to amend the law relating to the respective responsibility for repairs between landlords and tenants on short-term tenancies. At the time of going to press this Bill had not been published.

The next re-valuation for rating purposes is due to take place in 1963 ; and just as this issue goes to press, the Government have published a Bill to amend the law of rating and valuation and to facilitate the re-valuation.

Other measures proposed include Bills to re-organise and improve Covent Garden Market ; to amend the Crofters (Scotland) Act ; and to extend the investment powers of trustees (legislation on this topic was foreshadowed by a White Paper published in January, 1960—see *The Chartered Surveyor*, February, 1960, page 394).

One Bill which was not mentioned in the Queen's speech but which has subsequently been published is the Public Health Bill. This provides for the replacement of local building bye-laws by building regulations made by the Minister of Housing and Local Government and applicable throughout England and Wales outside the City of London.

Land Drainage

The Heneage Committee on land drainage published their report nine years ago ; the Government have now introduced a Land Drainage Bill based on the Heneage Committee report but adapting a more selective and less sweeping approach.

Under the provisions of the new Bill, River Boards will be able to levy drainage charges on agricultural land either for general, or special agricultural, purposes. The total charge will be limited to 1*s.* 0*d.* in the £ on Schedule A values—estimated to amount to about £5 a year on 100 acres of average land ; the charge will be payable by occupiers of agricultural land which does not already carry drainage rates. The new revenue will enable River Boards to take over a number of the watercourses which are not at present controlled by any public authority.

New powers will be given to local authorities to deal with urban flooding problems ; strengthened machinery will be provided for local drainage improvement schemes in rural areas by county councils and improved powers given to deal with neglected watercourses and ditches.

Modus Admensorandi Terram

It is over 550 years since Parliament ordained that " three grains of barley dry and round do make an inch." Now, under the new Weights and Measures Bill, and in more prosaic language, the inch is to be $\frac{1}{36}$ of a yard, the yard 0.9144 of a metre, and the metre " shall have the meaning from time to time assigned by the Board of Trade."

Management and Maintenance Costing

Is it possible to obtain reliable comparative figures for the management costs of local authority housing estates? For some years now, the Institution has been studying the possibility of producing such figures. A questionnaire was devised which should ensure that such figures were on a uniform basis ; a pilot survey was carried out and some useful information was obtained. Encouraging reference to this work was contained in the Ministry of Housing and Local Government's report " Councils and their Houses."

More recently, a group of members has been devising a standardised system of costing maintenance work, which could be adapted by different housing authorities to meet their individual needs.

The Ministry of Housing and Local Government have now declared their interest in both these fields, and a working party of departmental officers and local authority officers has been appointed with the following terms of reference—" To review the arrangements of local authorities for the calculation and apportionment of the expenses of housing management and the costing of the maintenance and repair of their houses ; to examine the possibility of the adoption of more uniform methods, and to make recommendations."

The Institution has been invited to submit evidence to this working party and chartered surveyors will have much to contribute to this study. Three members of the Institution have been appointed to the working party—Mr. B. H. Critchlow (Professional Associate) as one of the Ministry's representatives, Mr. J. P. Macey (Fellow) a representative of the Association of Municipal Corporations, and Mr. H. E. Gilby (Fellow), a representative of the Rural District Councils Association.

Pipeline Easements

The Ministry of Power recently invited the Institution to submit views on whether pipeline development should continue to be authorised by Private Bill ; if so whether modifications to the procedure are desirable ; or if not, what procedure should be substituted.

The House of Commons Select Committee set up in June, 1960, to consider the Esso Petroleum Company Bill concluded that Private Bill procedure for the construction of pipelines was not the best way of safeguarding the interests of owners, lessees and occupiers ; the Committee recommended that no further Private Bills for the construction of pipelines should be passed by the House of Commons. The Institution has agreed with these conclusions reached by the Select Committee.

As an alternative the Institution has suggested that legislation be introduced to enable the Minister of Power to authorise pipeline development by order ; that the procedure for making and approving the order be the same as the present procedure covering the compulsory acquisition of land, contained in the Acquisition of Land (Authorisation Procedure) Act, 1946 ; and that a public enquiry be held into any objections.

Up to the present time, discussions in Parliament have only been concerned with pipeline easements for the transporting of petroleum products ; but the Institution has suggested that it may be advisable to make provision for applying the same procedure, at some future date, to pipelines required for other products ; and that it may be convenient to do this by providing in any proposed Bill that such extension of its provisions could be made by an affirmative resolution of both Houses of Parliament, specifying the product or products in question.

The Great Wen

Not since 1834 has a body been charged with the duty of surveying the London scene as a whole ; the publication of the Report of the Royal Commission on Local Government in Greater London (Cmnd. 1164, 28*s.* 0*d.* net) is, therefore, a strategic landmark in London's history. One periodical likened the Commission's Report to a Beethoven symphony ; whilst this might be carrying praise too far, it is certainly true that the Report is extremely well written and presented. Reading it as a whole it is difficult not to be swept along with the cogency of the Commission's arguments and conclusions.

The Royal Commission was set up in 1957 under the Chairmanship of " our trusty and well-beloved " Sir Edwin Herbert. The Commission obviously approached their arduous task with enthusiasm and thoroughness : this is reflected in the Report which runs to 373 pages (and a supplement folder of 12 maps) and which is a storehouse of interesting material. The Commission held 114 meetings and spent 88 days making informal visits to local authorities. Seventy days were spent hearing oral representation, in the course of which the Commission asked 15,949 questions.

The Report draws some sharp conclusions on a number of topics but the Commission were obviously impressed by the evidence they received of the vitality of London. " We have travelled the Review Area in all seasons and weathers, and no-one who has done that can fail to be struck with the ' cared for ' appearance of the London scene from end to end, whether it be grass and tree planting in a council housing estate, the window boxes in City offices, the flowers in a highway roundabout, the children's clothing in school or at home, or the women's dresses, hair styles and make-up. London is not a drab place, and is taking on an air of gaiety well in keeping with the traditional vitality of the Londoner."

A summary of the main conclusions of the Report is published on page 327 of this issue.

Agriculture at Bangor

Members may well have raised troubled eyes from the text of the report of the agricultural meetings at the Bangor Conference, rubbed aching thumbs and expressed utter bewilderment. On page 227 (the page is mentioned specifically with no small measure of trepidation) members were directed with an air of authority to Professor Roberts' paper on " Improving a Hill Farm " in the September journal and to the subsequent discussion " recorded elsewhere in this issue." Having triumphantly tracked down the paper in the *October* issue (and made a mental note to " drop a line to the Editor "), the most cunning of Sherlock Holmes must finally have admitted defeat as to the whereabouts of the discussion. It had in fact yet to make an appearance. This contribution at last takes a bow on page 303 of this issue. (At least that's where it was last seen.)

Battling manfully on the most intrepid surveyor surely found the hurdle on page 229 too much after the exertions of the earlier page. To find page 172 in the November issue calls either for a vision or a mental aberration. Failing these, lesser mortals must look to the October issue for page 172 and Mr. Walmsley's paper, and wearily thumb to page 236 of the offending issue for the " ensuing discussion."

It is all faintly reminiscent of those usually long and always impressive indexes which bear the reader by devious routes through innumerable permutations of the subject first thought of back to his starting point and referred to in a classic publication on indexing as a " wild goose chase." Sincere apologies are offered for the confusion caused.

Presidential Address

By J. D. TRUSTRAM EVE (Fellow), F.L.A.S., F.A.I.

The following address was delivered by the President at an Ordinary General Meeting of the Institution held on Monday, 14th November, 1960, at 5.45 p.m. Prior to the meeting, the President laid a wreath at the Institution's memorial to the members who lost their lives in the two World Wars; and the "Last Post" and "Reveille" were sounded.

1. PROFESSIONAL WAY OF LIFE

Throughout history there can be traced a professional way of life running as a thread through human activities. This has been particularly apparent in this country for many centuries, with the status of professions consistently rising in the eyes of the community. One has read of the lack of confidence which used to be expressed in the "Physician and Barber Surgeon" and the "Pettifogging Attorney" of the 16th century. In more recent times there have been added many other professions and also professional or quasi-professional status has been claimed for activities which fall short of what our forefathers conceived the term to mean.

Over the same period it has become the general practice of professional societies to enforce stringent standards of entry into their societies and high ethical codes of conduct by their members.

To quote five of the leading professions :—

The law has always insisted on high standards of qualification and behaviour over the centuries. Such current discussions as that of amalgamating the two branches, the Bar and solicitors, merely underlines the importance that the informed public attaches to maintaining the status of the law.

Medicine, even though some may hold that its subjection to a measure of Government control in recent times may have reduced its professional standing, nevertheless still holds the respect of the public owing to the high standards established by its members in the past which it still maintains. Others should give wary consideration to any suggestions for surrendering the control of their activities by their own members.

The engineers' profession is a very wide and complex one. As a result of the advance of mechanical science and of the requirements of this modern world, there are, in addition to the three senior engineering Institutions, a number of societies covering specialised aspects of their work. There is a significant proposal now being put forward to amalgamate the Institution of Municipal Engineers with the Institution of Civil Engineers. In many spheres the engineers' activities are related to those of architects and surveyors who know well the high standards maintained.

The architects have always set a high standard of competence and integrity though it is difficult for me, an outsider, to appreciate the need for registration, which was introduced in 1931 to prevent the use of the expression "architect" by the unregistered. If the training of the architect is criticised as being too academic, so that he is turned out without a sufficiently practical outlook to meet the worldly difficulties with builders, planners and clients, it remains true that his standard of competence of design is as high as ever.

The accountants have always shown a progressive rise in the confidence in which they are held. The goodwill attached to "chartered accountant" has long been high and was enhanced by the recent skilful amalgamation of societies which consolidated the accountancy profession, and was in its success a sign of its healthiness.

These five leading professions of law, medicine, engineering, architecture and accountancy have been cited very briefly to show what a fine position they have held amongst the activities of commerce, industry and government. This is due to the standards of competence and integrity maintained by them, and by their individual members, for a very long time. These professions, and the many others, can only continue to make their due contribution to the well-being of this country and its standing in the community of nations if these standards can be maintained in the face of the difficulties of recruitment and lack of financial incentives which face them.

2. OUR OWN PROFESSION

It is interesting to examine the place which our own profession takes among these professions and what its standing is in the eyes of the community it serves. The profession of the land presents so many facets to-day that its position cannot be assessed in one sentence. It was not in its inception a single profession and its history flows from several sources. To give several examples of its history :—

Agriculture

Valuations for various purposes, such as customary tenant-right upon change of farm tenants, were often in the past carried out by farmers selected for their ability. Stewards on estates would manage the farms and on occasions also make tenant-right valuations, and these led to land agents and surveyors managing land and carrying out valuations.

Building Construction

Before the 17th century the title surveyor was used more frequently than architect for men who carried out the design and layout, and supervised the construction of buildings; now the name of architect is applied to those who deal primarily with design. But the title surveyor is still used for certain traditional appointments, such as "Surveyor to the Fabric of St. Paul's Cathedral" and Surveyor to City Livery Companies. There has always been a need to estimate the quantity of materials required for the construction of a building; but it is only with relatively recent advances in materials and techniques that this function has required the high degree of skill and training of a surveyor.

Land Measurement

In its simplest form of chain and staff and level, land surveying has always been a basic requirement for most surveyors. As new techniques have been developed to meet the requirement of mapping large areas economically, and of reproducing cheaply more maps and plans displaying more information, it has required specialist training. The extent of these developments will have been clear to anyone who attended the International Photogrammetric Congress at London University in September.

Minerals

Mining became a subject for the surveyor almost as soon as underground methods of working were developed. As the techniques of mining and quarrying improved and the knowledge of geology increased, so their role became more important. Their specialised knowledge of geology and methods of working is employed in considering such problems as subsidence and the valuation of mineral-bearing land.

Road and Railway Construction

In the 18th and 19th centuries, the construction and maintenance of roads, and later railways, required the service of surveyors. The successors of those concerned with roads now mostly serve the highway authorities as whole-time employees and are known as road engineers as a profession, and as county surveyors in their appointments.

The coming of the railways required railway engineers for surveying the route and designing the bridges, tunnels and stations. There arose at this time specialist surveyors to advise owners of land on their claims to compensation for loss and damage to their property, caused by the coming of the railways. New roads to-day require similar services.

Rating

Assessment of annual values for local taxation was early a task for surveyors, though the duty of assessing the " ability of each inhabitant or occupier in the parish " was put upon the overseers who frequently employed an independent person at a fee to carry out the assessment. These later became known as rating surveyors.

Valuation

There has always been a demand for advice on valuation, and as life and legislation have become more complicated, so the intricacies of valuation have developed. In particular the great change away from the landlord and tenant system during the present century, so that for example houses, offices and shops are so frequently owned by the occupiers, has made values less easily predictable and valuation therefore requires a greater sense of value.

* * * *

All these among many others have been the original sources of the profession of the land, like the tiny tributaries of an imposing river. But to-day that river flows not in a single channel but in several broad streams, some intermingling but many keeping in defined courses close together throughout their length.

So we have as many facets as we had original sources ; and owing to the complexity of modern times, fewer of our members cover any very wide area in the surveying field. Whilst the separate courses may be no more numerous than before, there are fewer individual surveyors who pursue more than one or two. This can be noted particularly in the separation of the urban and rural fields ; for it is rare to find a surveyor to-day who is equally at home in both, whereas in the not very distant past it was usual for a London surveyor, for instance, to be a competent agricultural valuer and to give advice on both urban and rural properties. Some firms with large partnerships are still able to cover several sections of our profession.

So we get the modern profession of the land separating into specialist groups which are difficult to enumerate precisely. It is convenient perhaps to divide them into the four main groups.

Quantity Surveyors

The main function of quantity surveyors 20 years ago was the preparation of bills of quantities and of interim valuations, the valuation of variations and the checking of the final account. Since the war they are increasingly being retained to advise clients on cost and its implications on lay-out and design, which is becoming of greater importance.

Mining Surveyors

Many mining surveyors have to-day statutory responsibilities under the Mines and Quarries Act with regard to plans and other documents required to be kept in relation to a mine. Their work in this field is often essential to the safety of the men employed below ground and to the efficient working of the mines. The mining surveyor is also employed on valuations, where his technical knowledge of geology and methods of working and its effects upon the overlying surface is useful. In this type of work he sometimes enters a field which overlaps the work of the general practice surveyor.

Land Surveyors

Land surveyors mostly specialise in one of the following : large-scale land surveying and land registration, geodetic surveying, topographic surveying, cadastral surveying or hydrographic surveying.

General Practice Surveyors

The remainder might be grouped under the general heading of general practice, though this group embraces both surveyors who have a broad knowledge of several fields and also specialists who are experts in only one or two of them. It includes work of structural survey, maintenance, repair and adaptation of buildings, which is carried out not only by the general practitioner, but also by specialist building surveyors, many of whom are also architects. Then there is the vast sphere of management and valuation of urban properties for a variety of purposes, including advice upon redevelopment. Town planning covers a specialist group acting mostly on the planning authority's side, but often too in private practice. This subject affects most of the activities of the profession in valuation and management, and therefore extends into many private practices, and also affects the majority of surveyors in public service. In addition to straightforward land agency covering the management of rural estates, either as whole-time resident land agents or by private firms, agricultural valuations of all kinds are carried out by members of this group. One must also give mention to the valuation and sale of chattels, both dead and live farming stock on the agricultural side, and furniture and *objets d'art* chiefly by urban specialists.

3. PROFESSIONAL STANDARDS

We like to think that our standing amongst the ancient professions is high to-day, higher than ever before. Coming more recently, perhaps, on to the scene, in spite of some ancient sources, we should derive some satisfaction from this, but not indulge in complacency.

No profession, however well established, can afford for a moment to relax the vigilance it employs over its standards of quality of work and its integrity of behaviour. In these days of sensitive public opinion, quick to react through the press and Parliament, the ultimate test is what the profession looks like to the public generally and particularly to that part immediately concerned with its activities.

The standards of technical excellence are ultimately determined by the ability shown by the members in carrying out their professional duties. Technical training and examinations should secure that a surveyor's ability will be based firmly upon being taught how and where to acquire the necessary knowledge upon which to base his practical experience. For such experience is the only true basis of competence for the members.

More important than technical standards, however, many may think, are the standards of integrity set by the members ; for a profession will be judged by this test and it is one which cannot be ensured by the mere setting of examination papers. It is largely indefinable, but will be measured against the general standards of current behaviour from time to time within the community as a whole, which may vary from country to country overseas.

Minimum codes of conduct are laid down by professional bodies ; but these do not themselves set the standard of integrity within a profession, for that is determined by an aggregation of the actual behaviour of its members. There are, therefore, or should be recognised rules of behaviour which are different from the minimum code of conduct laid down by bye-laws administered by a disciplinary committee. Such rules should be upon an altogether different plane, for upon them, whether recognised or intuitively followed, would depend our standing within the community. They must be based upon a genuine desire to serve the client's interest and the public. And they should be accompanied by a genuine desire also not to gain position or fees at the expense of other members and, above all, to be content to depend for position and practice upon a reputation for good conscientious work, and not at all upon boasting and self-advertisement.

To take two examples of what I mean, there is the question of advertisements by members displaying before the public their qualifications to carry out professional work. It may well be that ours is the only profession which is still allowed to advertise in this way. I believe that a continuation of advertising by our members will retard our progress amongst the other leading professions of the country and should therefore be prohibited.

In our profession, however, there is a great number who practise estate agency where, in order to fulfil the client's needs, it is necessary not only that the property in question should be advertised with the name of the firm responsible for the sale ; but it is necessary and proper also that the firm of estate agents should become known to the public as one which is in a position to sell properties, generally or of a particular class. This aspect of the profession, which is sometimes referred to nowadays as the commercial side, requires advertisement by the practitioner. It is this I believe that has allowed our profession, alone amongst other professions, to continue to advertise. It should not, however, be difficult to devise a means by which the practitioner should be allowed to advertise his readiness and ability to sell properties as an estate agent ; but not to advertise the other professional qualifications and activities. It would be shocking for many to see for example amongst the property advertisements on the back page of *The Times* an advertisement by a firm of estate agents that they are prepared to carry out professional work such as advice on the rating of properties. The code of conduct already recognises a difference between the professional behaviour of a man setting himself up in the public eye to sell properties and those activities devoted to other aspects of the profession ; but this differentiation is in the field of solicitation for work and not in the field of advertising.

There is, I am told, a not uncommon practice amongst consultants when called in by their colleagues in the profession to advise a client on some specialist matter to agree to surrender a part of his fee to the practitioner merely for his introduction of the work ; with the result that either the scale fee for that job is too high and so the consultant can afford to give some of it away or he is working on too low a fee and is in fact undercutting. Such a promise for surrender of a portion of the fees by consultants carries with it the risk that the practitioner recommending a client to call in a consultant would be fettered in his judgment by whether the consultant is prepared to part with a portion of his fee and, if so, how much. This practice, if adopted by other professions, such as medicine, would I think be considered shocking by the public the profession serves.

Until such matters as these can be put right by regulation and by agreement between the societies concerned, the Institution might well adopt a voluntary code to include such matters as these.

I would like to mention one other matter. For years there was amongst leading surveyors the unwritten but well-known rule that members of our profession should not themselves purchase properties for speculative re-sale, so that it should not appear that their advice to a client would be prejudiced by their own property interest. No doubt the temptations in recent years for members to indulge in property speculations renders this rule more difficult to honour and one wonders how many have ceased to observe it. In my view it should be firmly restated.

4. COLLABORATION BETWEEN PROFESSIONAL ASSOCIATIONS OF THE LAND

I have already mentioned the importance of societies raising and maintaining the standards of a profession and thus influencing its standing within the community. But I believe that unless a society also devotes much of its effort to serving the public by offering advice to the authorities and by promoting the competence of its members, it will not be contributing as it should to the interests of that profession. I believe that the importance of any society within a profession must be measured by its contribution to that profession as a whole.

Thus I come to our Institution. There are many professional bodies associated with the land and I believe the Institution is widely accepted as the leader. This is not merely because the Institution is the oldest, having been founded in 1868, nor because it is the largest. I believe it is primarily because it has been clearly successful in maintaining amongst its members throughout its 90-odd years of existence a high standard of technical skill and integrity ; also because it covers more completely than any other society the widespread activities of the profession, and this has the effect of both broadening the knowledge of its members and enabling it to take a balanced view in discussing problems of public and professional interest.

There are so many of these other societies that it would be impossible to refer to them all. I mention only the three that work closest with the Institution.

The Chartered Land Agents Society

The Society was founded in 1902 and its members are predominantly managers of rural estates on either a resident or a general practice basis. In common with other societies a proportion of its members is also employed in the public sector where the work is of an ancillary and complementary nature such as in the Land Service of the Ministry of Agriculture or with local authorities or the Services. I believe it is of great value that there should be an independent professional society looking at the agricultural section of the national economy from this point of view separately from the agricultural division of our Institution, which covers all aspects of rural problems and their relation to the economy as a whole. It was this advantage which was thought to

outweigh the administrative advantage of amalgamation which decided that issue in 1947.

THE CHARTERED AUCTIONEERS AND ESTATE AGENTS INSTITUTE

The Institute was founded in 1886 and whilst covering the activities of members in general practice, it has made a noteworthy contribution to the valuation and marketing of agricultural livestock. Its members also practise in chattel valuations and sales, and auctioneering; and it lays emphasis on estate agency. The possibility of amalgamation of the Chartered Institute with the Institution has occasionally in the past come up in conversation. Since the Chartered Institute continues with its great efficiency to administer the special sphere in which it operates and will doubtless continue to co-operate successfully with us in the common sphere of our two societies, it is unlikely that amalgamation would bring any advantages to the profession. Indeed, mere bigness could be an administrative menace.

THE INCORPORATED SOCIETY OF AUCTIONEERS AND LANDED PROPERTY AGENTS

The Society was founded in 1924. Although its field includes no activities which are not covered by the older societies I have mentioned, it embraces members of the profession who are employed in the professional departments of organisations which combine commercial activities with the provision of professional services. Such people had become ineligible for membership of the senior bodies under their rules, and it is an advantage to the profession that these persons should find corporate shelter within this Society.

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The reason why I have mentioned by name the three societies I have cited, is that they join the Institution in a joint fees and practice conference. This conference has formulated and now regularly reviews a code of professional conduct and scale of fees. Nothing but good can come from even more intensive collaboration between the Institution and these three in the future.

Many other associations within the profession that I have not been able to mention make their individual contribution great or small to the well-being of the profession. Each represents a body of opinion in its own particular sphere and might be brought into discussions at appropriate moments should there be matters to which it can usefully contribute. Thus would understanding and collaboration be more widely fostered within the profession. Indeed I believe it is both in the interests of the public and of the profession itself that professional bodies should co-operate fully with each other upon appropriate occasions, not only in matters of education, professional competence and conduct, but also concerning matters of public moment.

An example of such co-operation is the National Joint Consultative Committee set up between architects and chartered quantity surveyors and the building trades employers' national federation. This Committee's organisation has done most valuable work both domestically by promoting co-operation and efficiency within the industry, and by advising the Government. Another fruitful example is the arrangement recently reached by the Institution with the Chartered Land Agents Society whereby Institution candidates for the new practical test for the Land Agency Section of our examinations are to be allowed to join up with the Society's candidates in their well-known practical examination. I could mention many other examples of such successful co-operation between professional societies and the beneficial results both to the public and to the profession.

The recent decision to introduce a Bill into Parliament for the registration of estate agents (which was referred to in a letter in *The Times* over the signatures of four societies in November, 1959) calls for the highest degree of co-operation between associations representing the profession. This need will not cease if the Bill becomes an Act of Parliament and registration a fact.

During recent years, those concerned with estate agency have noticed with increasing alarm the lack of responsibility of a certain minority, who not being members of any recognised association are not bound by any common standard of behaviour or competence nor any common scale of charges. This has resulted in deficient service to the public and hardship to members of the profession who were bound by codes of behaviour. When registration comes about there will arise the problem for the profession to solve as to what sort of conduct should be imposed upon the profession, including those practising members of the profession who have not previously been controlled at all and who will have to register, and what standard of qualification should be required of newcomers. This will need the exercise of great care and wisdom which can only be effected if there is true collaboration amongst those concerned.

I would remind members however that just as charity begins at home, so also should co-operation. I therefore stress the importance of mutual understanding and co-operation between the various sections of this Institution, some of which form almost separate societies. How many valuers have any knowledge of the working of a quantity surveyor's office or of the difficulties and dangers that have been faced and overcome by the quantity surveyors section; or of the organisation which they maintain with such skill within the Institution? Equally there is the necessity for mutual understanding of the work and problems of the mining surveyors, land surveyors and urban and agricultural surveyors.

I hope that the new Internal Services Committee will be quickly successful in promoting a mutual understanding by all our members of the work, aims and ambitions of all sections of the Institution.

5. TRAINING AND EDUCATION

Standards of technical ability, and indeed also of integrity and behaviour depend upon the training received by the members. This is particularly true in the early years and the result of that initial training is decided by examination. As training is really the result of experience and continues throughout the professional life of a member, the Institution places great stress upon seeing that candidates for the examinations are at the start in offices approved for the purpose. Young men in a good office will secure mental and moral discipline from the example set by those around them. Moreover the degree of training secured by any particular candidate depends upon the type and number of persons with whom he comes into contact, whether inside the office in which he is working or with members of the profession outside the office whom he meets during his work. This period is also of the greatest value in shaping his outlook upon the standards of behaviour which he will later adopt as his own. Our standing depends in my opinion very much upon the ability and readiness of members to see that the young entry is fully trained in these two senses.

It is important, however, that the practical training and experience should be backed by academic learning obtained by correspondence courses during training or by whole-time

courses at training colleges such as the College of Estate Management. The amount of academic learning that any candidate is capable of absorbing varies according to the intellectual ability of the candidate and with his previous education. A nice balance between the two is essential. There are many members of the Institution who have great intellectual ability and who received a wide academic training for the many difficult problems facing the profession. These men are of the greatest value particularly for teaching and research. It is true to say however that the practical problems facing the profession in its day-to-day life require persons with more than mere academic ability ; indeed " able and practical " men in the words of our charter. There are few professions which require more certainly a person with sound sense and a practical outlook ; persons who might be described as having their feet firmly on the ground. If these men of ordinary ability combine with it an academic ability as well, as many do, it is greatly to their advantage. It is expected that the forecast of the Crowther Report as to the increased educational opportunities that will be reaching the ordinary boy at school will gradually over the years contribute towards improved educational ability of the members coming into the profession.

In my opinion, however, it would be wrong to suppose that we wish to have boys in the future of any very different type from those reaching us now. We want the same type, but with the better educational background which is promised in the Crowther Report.

I submit that part at any rate of the theoretical study by the ordinary candidate for his examinations can best be carried out when he is simultaneously seeing the subject happening in an office. Indeed it is no exaggeration to say that true understanding often cannot be obtained without it. The courses whether whole-time at colleges, part-time by evening lectures and days off from offices or by correspondence courses mastered in the spare time of a candidate, covering as they do the whole of a subject from start to finish, aided by the textbooks recommended for the candidate's reading, can give the ordinary candidate a sound ground-work for his practical training. But these studies should not be regarded as substitutes for the real training for a surveyor which is his practical experience in action.

Examinations form a very necessary incentive for a man to train himself for his profession, in addition to the normal purpose of an examination to test his suitability to practice in it. It is difficult to balance an examination so that it tests the academic ability of a candidate and, at the same time, tests his practical ability to perform the functions of a surveyor. We must avoid a form of training which encourages a surveyor to hold forth on the economic theory of valuations, when his client requires him only to decide who would be likely to buy the property in question and how much he would pay for it, in other words value it.

If we are to attract in the future candidates who will be both happy in their walk of life and suitable for carrying out the day-to-day sometimes humdrum duties of a surveyor then it will continue to be true that the core of our profession will consist of those recruited from amongst the ordinary schoolboys without any great academic distinction. In addition, however, to these we should continue to enlist in our ranks a number of highly intelligent and well-educated people for we have a number of complex problems facing us which will require the best intellects to solve. Moreover we have been urged in recent years by persons in high authority outside our profession to undertake research into problems of the land, and we have on hand at the moment, amongst others, the problem of the steep rise in the cost of building land, involving as it does a study of the control of planning, the requirements for land development and the principles upon which supply and demand for land operate.

We continue to receive well-educated candidates from the Universities ; and it is very necessary that we should continue not only to receive such candidates, but to increase their numbers, not only those with degrees in estate management but also those with other degrees. Recently the Council decided that these other degree holders should be relieved of certain subjects in our examinations and encouraged to enter our profession. I feel sure that always in the future the Institution will watch the position to see whether further encouragement can be given to them.

The Report of the Special Committee set up by the Council to advise upon the future policy of the Institution on the training and education of its members will be the cornerstone of the future educational edifice, and it formed the basis for discussions at the fourth Chartered Surveyors Conference held at Bangor in September. We were, indeed, fortunate to receive two outstanding contributions to our educational discussions there from Sir John Wolfenden, the Vice-Chancellor of Reading University and Mr. A. A. Part, Deputy-Secretary at the Ministry of Education.

One could quote endlessly from both these ; but one quotation from Sir John must suffice. " There is no topic on which it is easier to become airborne than education ; no subject lends itself more congenially to warm and shapeless generalisation ; no area of human speculation admits of more ambiguities and misunderstandings ; and nobody has anything new to say about it anyway." I shall probably be accused of this indulgence myself, but let us take this advice to heart when formulating our own policy for training and education.

6. THE FUTURE

The future of the profession of the land depends, as in the past, upon the type of recruit that will be attracted to it. So little has been known of our activities in the past amongst the ordinary public that it is difficult to say by what means boys have been attracted to it. Probably in the majority of cases the boy has known somebody already in the profession and has chosen it for that reason, and has chosen a particular aspect of it from that knowledge too. There is also the attraction of an open-air life which so many boys still desire. A great number of boys at school have told careers masters that they do not wish to sit at a desk, and to avoid this is one of the attractive features of the profession of the land. This is particularly true of the rural side and more especially of land agency. It is likely that these factors are the ones that tell and will continue to tell in the future.

But there has been looming over professions during the last few years the lure of money held out to schoolboys by industry and commerce. We hear more and more that boys at school are being attracted to industry and commerce rather than to the professions. Can the professional way of life be put forward as a counter to the prospect of greater earnings in industry and commerce?

What is the professional way of life? Whilst it is difficult to define, it would certainly include a desire to acquire an expert knowledge and technique and a readiness to put them to the service of the client or employer and of the community. Financial considerations are to-day of great importance in the choice of a calling ; but in a profession could not be allowed to swamp all consideration of service. Unless this

conception of a career continues to appeal to boys from school, professions will not continue to receive worthy recruits and the professional way of life in this country will falter. It is difficult to see how individual professions can successfully compete for recruits against this industrial and commercial counterblast. A first step might be for certain professions collectively to put before schools a picture of their professions in a manner that would attract the type of boy suited to that walk of life. Each profession would continue to attract its own recruits from those who would have been thus converted.

A consideration of our profession would not be complete without mention of its place overseas particularly in the Commonwealth where many of our members have gone out to practice in one sphere or another. These members find conditions abroad very different from those to which they have been accustomed. Laws and commercial practices are different, as also in many cases are the conditions of professional life upon which their standards of ethical behaviour should be based.

From overseas also we have an increasing flow of recruits. Providing for them the necessary academic training and examinations is a relatively straightforward problem ; finding them opportunities for their practical training is not quite so easy.

But many may believe that it is the professional way of life in Britain which is one of her contributions to the evolution of the Commonwealth countries. How to imbue these young recruits from overseas with the ethical discipline which they will need in order to establish in their own countries this concept of professional standards may be the most difficult problem of all.

There is also the question whether our overseas members should be organised in branches of our Institution, as many of them are at present, with such modifications of examination and code of conduct as may be necessary for each territory ; or would be better served by independent associations in affiliation with our Institution. Much helpful guidance was derived by the Institution from the visits of two Presidents, Mr. W. R. Brackett in 1955 to Africa and Mr. F. G. Fleury in 1958 to Canada; and our conference last year of representatives of overseas members brought many issues into the light and further discussions of the same sort are now taking place.

I have endeavoured in this address to indicate the nature of our profession, its organisation, and its place in the life of the country, and to show that our Institution is only part of the whole profession of the land, which in turn must be viewed in its setting amongst the other professions. It is this conception which each of us in the Institution should be serving. It is in this context that we should be ready to discover and ponder over the problems that face the profession and be prepared with solutions when the time comes to apply them.

Many of these problems also face other professions and collaboration therefore to my mind is a continuing necessity. The Institution has always been active in pursuing collaboration with other professional bodies as and when problems arise. In the future this could be intensified and improved by anticipating events rather than waiting for them to happen. Only by frank understanding of the other association's point of view can such talks succeed in laying down the respective spheres of activity and the common ground in between, where the clash of interests and competition between the professions can occur.

Suggestions have been made by the presidents of other professional associations with this in mind. The then President of the Royal Institute of British Architects, Sir Basil Spence, in his delightfully outspoken address to his Institute last November made a strong plea for unity between professional bodies for discussion of technical problems and so avoid "bickering in public." With respect, I would most strongly endorse his views as they coincide with those which I have personally held for a long time. Architects are so near to our own profession in the fields of development, building and planning (indeed are really part of it as I have shown) that consultation between the Institute and our own Institution and others should be constant. We should be grateful to Sir Basil for this lead.

Our talks in the last few years with the Royal Institute of British Architects and other societies concerned with town planning and development have brought about a better understanding ; and represent a more fruitful approach than unilateral pronouncements by individual societies, which almost inevitably causes bother in other quarters. For these reasons I warmly welcome the suggestion made by Sir William Holford, in his Presidential Address to the Institute a fortnight ago, that there should be even closer co-operation between our two societies for finding practical solutions to such problems as urban redevelopment, which would bring into a true relationship the economic and architectural factors involved. Nothing less than full and continuous collaboration is due to the community which we serve.

One quality needed in our national life to-day is the quality of enterprise, as the authors of "Professional People"* emphasize and add "But what profession can provide it, what examinations test it, what syllabus train it, what association make rules for it?"

Whilst taking steps to maintain and improve our educational standards of entry into the profession, our training of candidates for the profession, our rules of professional behaviour during practice, let us not overlook the necessity amongst our members for that very quality of enterprise.

* Professional People—by Roy Lewis and Angus Maude. (Phoenix House, Limited—1952.)

Golf

Weekend Meeting at Rye

The Chartered Surveyors Golfing Society held its weekend meeting at Rye on 8th and 9th October, 1960, with the following results :—

Silver Rose Bowl : Murray McCash.
Captain's Prize : J. W. G. Barr.

Match v. Chartered Auctioneers

A match was played on Thursday, 13th October, 1960, at Sunningdale Golf Club between the Chartered Auctioneers Golfing Society and the Chartered Surveyors Golfing Society. The surveyors lost by 4½ matches to 9½.

Hong Kong Section

The Hong Kong Section of the Chartered Surveyors Golfing Society have reported the following results of their competitions during the year :

Society's Trophy—	Winner:	C. S. Barron.
	Runner up:	A. W. S. Smith.
Chairman's Putter	Winner:	A. W. S. Smith.
	Runner up:	I. L. Stanton.

The Ninth International Congress of Photogrammetry, London 1960

By Brigadier A. H. DOWSON, A.D.C., O.B.E., B.A. (Fellow)

The Ninth International Congress of Photogrammetry was held at London University from 6th-16th September, 1960, under the patronage of H.R.H. The Prince Philip, Duke of Edinburgh, the Presidency of Major-General R. Ll. Brown (Fellow), and with the support of H.M. Government. The joint hosts were the Institution and the Photogrammetric Society. This was the first time the International Society of Photogrammetry had met in Britain. The Congress took place in the 50th year of the Society's existence.

The Congress was formally opened by The Rt. Hon. Earl Waldegrave, T.D., Joint Parliamentary Secretary, Ministry of Agriculture, Fisheries and Food. In the afternoon the Technical Exhibition was opened by The Rt. Hon. The Lord Brabazon of Tara, P.C., G.B.E., M.C., in a speech which delighted by its informality, reminiscences and humour.

Opening of the Congress by Rt. Hon. Earl Waldegrave, Joint Parliamentary Secretary, Ministry of Agriculture.

There was a momentous gathering: some 780 active members and 170 ladies, almost 1,000 in all, from over 60 countries. A splendid Technical Exhibition comprised 42 exhibitors from 12 countries, covering photogrammetric instruments and ancillary equipment, and several operating companies. Other exhibits included national exhibits from 16 countries, descriptive exhibits from a number of educational establishments, exhibits illustrating the results of practical tests in photogrammetric operations by the I.S.P. and the O.E.E.P.E. (Organisation Europeene d'Etudes Photogrammetriques Experimentales), and a Historical Exhibition which was formally opened by Monsieur G. V. Poivilliers, Honorary Member of the International Society. This exhibit traced the earliest attempts at photogrammetry, from its earthbound beginnings over a century ago, to its recent aerial development, and was of great interest. Perhaps it should have been mentioned first !

Lastly, lest any members found themselves with nothing to do, there was a programme of films of large and varied interest and beauty. Extra-mural activities included a full social programme.

Technical Sessions

With so much activity, it is well to remember the *raison d'etre* of the Congress: the sessions of the seven Technical Commissions, in which the latest developments may be described, verbal battles between the giants may be witnessed, and members as a whole may learn and exchange ideas. On this occasion, the majority of the sessions were conducted in a manner novel to the Society, reflecting the interest and firm direction of the President. A number of "invited" papers were submitted (and published in advance in "Photogrammetria") by authors chosen by Commission Boards, on subjects deemed to be of peculiar interest. On the assumption that they had been read before the Congress, they were briefly introduced by the authors and subsequently discussed by a panel of speakers, also chosen by Commission Boards. Finally, each paper was open to discussion by the body of members in the hall. This was a brave attempt to focus attention and ensure worthwhile sessions. For various reasons it did not wholly work out in practice. It may be that two quite different kinds of session are needed, the large gathering with chosen authors and panel of speakers, constituting a "presentation" with the full facilities of simultaneous translation into the three official languages of the Society, and no pretence that the audience can do more than listen; and the small, informal and intimate gathering of experts with a real interest in debating some contentious matter. In parenthesis it may be said that the simultaneous translation service functioned as effectively as the technical nature of the sessions permitted.

Apart from invited papers, there was of course a number of presented papers by authors who had something they wished to say. Though time did not permit the actual presentation of more than a small fraction of these, yet their authors may have been encouraged by the thought that their contributions would at least appear in the published "Archives," which the President (amidst astonished applause) confidently asserted would be available within six months.

In a general report of this nature, it is impossible to refer more than briefly to a few of the subjects discussed (more detailed information will be available in the Journal of the Photogrammetric Society, which recently conducted a Symposium on the Congress, under General Brown's Chairmanship).

Standard procedures were recommended for the calibration of survey cameras, and for related optical tests, so as to provide a basis for true comparison. In place of the present rather inadequate system of resolution tests for survey lenses, a system was suggested of frequency response testing of contrast transmission—promising in theory, but elaborate in practice, limiting the system to large organisations with wide facilities. Navigational aids to survey photographic missions were shown to lead increasingly to economy in survey photography, control and subsequent photogrammetric operations. There were several interesting detailed reports on the results of photogrammetric tests in aerial triangulation and mapping, and the analysis of errors encountered, including investigations to determine how far these were systematic or random—and the best way to treat them. It seems that photogrammetrists are prone to make too many gross errors, there are wide divergences between the performances of

individual operators using the same equipment on the same task, and in general, faulty procedures prevented full realisation of the potential of the photography and equipment. It was proposed to standardise the terms used in the application of error theory to instrument performance.

In aerial triangulation there were discussions on the general requirements of analytical systems, on block adjustments and on the respective merits of analogue methods of adjustment and precise analytical methods. Electronic computers are increasingly enhancing the value of the second method. An account was given of the effective use of auxiliary devices—statoscopes, airborne profile recorders, oblique and horizon pictures, etc.—to assist in the economy and accuracy of aerial triangulation. Experiments in plotting showed that instruments employing the anaglyph principle were slower and less accurate than those employing direct optical viewing. The French made effective use of the APR in small scale mapping in North Africa. American experience seemed to show that convergent photographs produced results in heighting that were 20 per cent. better than those from vertical photographs, though results are as yet inconclusive. Some shocking distortions in film were reported (up to 60 microns), thus seriously vitiating the accuracy theoretically possible with the best plotting equipment. It may be that the " analytical " plotter referred to later in this report will provide a means of allowing for film distortion, if the photographs are taken with a camera incorporating a reseau. There is an increasing vogue for " super wide angle " photography and one exhibitor showed a comprehensive set of photogrammetric equipment specially designed to use such photography—involving an expensive layout, demanding a large programme of small scale mapping to justify it.

More than one Commission reported that there was insufficient time for proper discussion. Significantly, some members of Commission III on aerial triangulation went straight on to a second conference on this subject in Milan.

On a really lovely day, two-thirds of the way through the Congress, members were able to relax by indulging in a series of "Technical Tours," to such establishments as the Ordnance Survey, the several operating companies, and the equipment manufacturers. An innovation here was the inclusion of the ladies, who, having done some sightseeing while their husbands were " being technical," joined up with them for lunch, and perhaps a second round of sightseeing in the afternoon.

EXHIBITS

One of the most absorbing features of the Congress, as in the past, has been the Technical Exhibition. To the sheer joy of appreciating the beauty of design and precision engineering (and much that was shown was indeed beautiful as well as ingenious) is added the enormous interest of photogrammetrists in the development of new equipment and techniques, in the assessment of relative accuracies and performances, and in the economics of different modes of photogrammetric operation. As an indication, one member remarked to the author of this report that he reckoned 50 per cent. of the value of the Congress lay in the technical exhibits and the opportunity they afforded for informal discussion with other members and manufacturers' representatives. The other 50 per cent. he assigned to : casual meetings with other nationals 30 per cent., social activities 10 per cent. and formal sessions 10 per cent. (how many would agree with the last?). The main trends appear to be : improvements in the basic material (the photograph) by the development of better cameras, lenses and films, and by electronic spot scanning printers ; the extension of analytical techniques of aerial triangulation, and the relegation of the high precision plotter to plotting alone ; increased use of mechanical and electrical devices to replace the human operator (for example : automatic co-ordinate readout, and tape and card punch for plotters and stereocomparators, electronic computing, electric co-ordinatorgraphs) a proliferation of cheaper plotters of limited capacity ; increased application of photogrammetry to engineering problems, such as the survey of profiles and sections and the computation of earthworks, and the construction of engineering drawings from stereo-photographs of prototype models ; the entry of completely new instruments into an already competitive field ; and the exploitation of entirely new ideas. In the last category may be mentioned two items discussed though not shown : an optical-electronic device which will automatically perform relative orientation, contouring and profiling, more rapidly and more accurately (it is said) than any human operator ; and an " analytical plotter," in which the link between the scanning/measuring device and the plotting table is not mechanical but mathematical, operating through a specialised electronic computer. This last item is still in embryo, but is expected to produce greater accuracy, flexibility and economy. To the charge (sometimes heard) that the manufacturer is misleading the operator into wasteful expenditure, the former may fairly reply that it is the business of managers to look after the economics of their own enterprises; meanwhile, the manufacturer will continue to look for fresh ideas to exploit.

Ninety Years Ago
Photographic surveying detachment of the Prussian army at the Siege of Strasbourg in September, 1870 (*courtesy of the Kodak Museum, Harrow*).

SOCIAL ACTIVITIES

Mention must be made of the social side. Receptions were given by H.M. Government at Lancaster House, by the host societies and the Congress Board at Londonderry House, and by the Royal Geographical and Royal Photographic Societies in their own Houses. On the middle Saturday, a number of visitors were entertained privately in British homes, and on the Sunday the river steamers *Queen Elizabeth* and *Viscountess* took a large number for a whole day trip to Tilbury and back, calling at Greenwich on the return—fortunately in beautiful weather. There was a full ladies' programme during sessions. The culmination was a Banquet in Guildhall, attended by some 450 members and a number of official guests. These latter included the Lord Mayor

of London and the Lady Mayoress, the Sheriffs, and the Rt. Hon. Lord Mills, Paymaster-General, who proposed the toast of the International Society for Photogrammetry. This was responded to by the President of the I.S.P. (General Brown) who, at the same time proposed the toast of " The Guests," to which a reply was given by Sir Lindor Brown, Vice-President of the Royal Society. Music was provided by the Band of the Royal Engineers and it was a pleasure to have the Chief Royal Engineer (General Sir Kenneth Crawford) and Lady Crawford among the guests.

THE HOSTS

A country which assumes the position of host to a Congress such as this is taking on a fairly formidable task. Not only must it find the Officers of the Society, but many individuals are necessarily involved as members of various Committees in many months of preparation. The organisation and running of the Congress would have been impossible without the voluntary work of private individuals, the official departments, and the operating and other companies. A special measure of praise is due to the members of the Ladies Committee.

GOVERNMENT OF THE I.S.P.

The " government " of the I.S.P. is vested in the Council, the Meetings of Delegates and (over technical matters) the Commission Boards. These bodies were all very active during the Congress, considering the many matters which arose concerning the future organisation and activities of the Society. Some of the results of their deliberations are given in the general resolutions summarised below :—

(1) Statutes Committee—to be reconstituted under the Chairmanship of Major-General Brown and to make recommendations to the Council by September, 1962, on matters including the aims of the Society, the means of achieving them, and the methods of adherence and of calculating subscriptions to the Society.

(2) Co-operation with outside organisations—The Council were recommended to make contact with other relevant bodies, with a view to the better co-ordination of international effort, particularly in research and experiment in photogrammetry.

(3) Location of the 1964 Congress—It was decided to accept the invitation of Portugal to hold the next Congress in that country (probably Lisbon).

(4) Appointment of Honorary Member—Major-General Brown was (with acclamation) elected an Honorary Member of the Society.

(5) Appointment of the Council for 1960-64.—The following were elected :

President : Ing. A. Paes Clemente.
Secretary-General : Mr. A. Duarte Calvario.
Treasurer : Mr. Santos Silva.
Members : Major-General Brown. Dr. Fagerholm (Sweden). Dr. Harry (Switzerland). Mr. Whitmore (U.S.A.).

(6) Appointment of Vice-President—It was decided to appoint a Vice-President from amongst the new Council, to stimulate the activities of the Technical Commissions in the next four years, and to assist Commission Boards. Major-General Brown was appointed and was invited, in conjunction with the new President, to propose terms of reference to the Council.

(7) " Photogrammetria "—It was reaffirmed that " Photogrammetria " is the official organ of the Society, whose Council may nominate two members of the Editorial Board.

(8) I.T.C.—von Gruber Award—It was decided to accept the offer of Professor Schermerhorn to endow a foundation from his private means in memory of Otto von Gruber. The Award is designed to encourage the younger men, and is to be given for an original article of high merit on photogrammetry or photo-interpretation published during the four years preceding the Congress at which the Award is made. Recipients are limited to those whose active career in photogrammetry is not greater than 12 years.

(9) President's Badge of Office—The President of the Photogrammetric Society, speaking on behalf of that Society and of the Institution, presented to the I.S.P. a President's Badge of Office to be worn on formal occasions. The offer was accepted with enthusiasm.

Though not the subject of a resolution, it should be recorded that Commissions for 1960-64 have been allocated as follows :—

1. Photography and Navigation—U.K.
2. Plotting, Theory and Instruments—U.S.A. (with a working group provided by Sweden).
3. Aerial Triangulation—France (with a working group provided by Italy).
4. Mapping from Photographs—German Federal Republic (with four working groups).
5. Non-topographical Photogrammetry—Austria.
6. Education, Terminology and Bibliography—Finland.
7. Photo-Interpretation—Netherlands (with six working groups).

Some propositions, put up by various countries, could not be properly dealt with at this Congress and were referred to the new Council and its subordinate bodies. They included a proposal to abandon national reports, thought to be redundant (there are in any case Commission Reports), one to set up a body to co-ordinate practical tests, another to set up a joint working group with members of appropriate Technical Commissions to consider the best means of assessing national resources in developing countries, and lastly a wide ranging proposal on future constitution and organisation of the I.S.P. The new organisation will be kept busy!

FUTURE TRENDS AND ACTIVITIES

At the start of this Congress there were 35 Members of the Society (including Institutions and Societies, official Departments, commercial firms and some individuals). During the Congress four more were accepted. There is no doubt that the Society has become larger in size and wider in scope, and has impinged more and more on the activities of other bodies. The Society's work and importance may be thought to have outgrown its present form. Some have suggested that a permanent Secretariat and other radical changes are needed. Meanwhile, in the appointment of a Vice-President, one short step has been taken in the direction of aiding the Council in managing the affairs of the Society over the next four years.

* * * * *

Any feeling of satisfaction at the conclusion of an evidently successful Congress is enhanced by the experience of having been able to entertain in London so many visitors from so many countries. Indeed this opportunity furnishes one of the main reasons for offering the services of host. In wishing all success to our Portuguese friends in the dual role of managing the affairs of the Society for the next four years, and of mounting the next Congress, we may assure them of our support and that of many other countries, and we may remind ourselves that Portugal is our oldest ally—and that hers is a fascinating country to visit.

Institution Notices

PENSIONS FOR LAND AGENTS

It was announced on page 5 of *The Chartered Surveyor* for July, 1960, that the Country Landowners Association had decided to sponsor a pension scheme for land agents who are members of the Institution or of one of the other two chartered societies.

The scheme has now come into operation. By arrangement between the Country Landowners Association and the Scottish Landowners Federation, it will cover land agents practising in Scotland as well as those South of the border.

A brief description of the scheme was given in the *Journal* announcement referred to above. Members who are interested can obtain full details direct from Messrs. F. Bolton and Company, Limited, Plantation House, Mincing Lane, London, E.C.3.

ELECTION OF THE COUNCIL FOR THE SESSION 1961–1962

The attention of members is invited to their rights and privileges under the 1958 Bye-law 47 (9) which states that

> " it shall be within the powers of any ten or more members of which not less than six shall be Fellows, to nominate for the approval of the Council, members for inclusion in the Balloting List as candidates for the areas, sections, or interests referred."

Council members will be elected to represent the following sections and interests :—

> quantity surveyors ; agricultural surveyors; land surveyors ; mining surveyors ; surveyors in Government service, in the service of local authorities, and of statutory undertakings ; building surveyors ; rating surveyors ; town and country planning surveyors ; Junior Organisation ; Professional Associates over the Junior Organisation age limit.

Nominations should be accompanied by a written undertaking of the nominee that, if elected, he will be prepared to serve on the Council, in accordance with the 1958 Bye-law 47 (11).

LIST OF MEMBERS 1961

The next edition of the List of Members is due to appear early in 1961.

In the interests of economy, the Council decided to make a charge of five shillings a copy for recent Lists and to limit distribution to those members who asked for copies.

The same conditions will apply to the distribution of the 1961 List.

An order form for the List of Members, 1961, *was sent with the October issue of* The Chartered Surveyor *to all corporate members. Orders should be placed by 12th December.*

Professional Charges

Architectural Services: Scale 35

As noted in the November, 1960, issue of *The Chartered Surveyor,* the Council of the R.I.B.A. have revised the Conditions of Engagement and Scales of Professional Charges applicable to Architectural Services. The new conditions and scales came into force on 1st October, 1960.

Consequently, the following amendments are necessary in Scale 35 of the Institution's Scales of Professional Charges :—

Head of Scale *Delete* the whole of Note (ii).

(*a*) (*iii*) *Add,* at the end of the clause, the words :—

> " and shall inform the client if the total authorised expenditure is likely to be exceeded and if the contract period is likely to be varied."

(*a*) (*v*) *Substitute* for the existing clause the following :—

> " The architect shall, if requested to do so, at the completion of the work prepare small scale drawings thereof showing the main lines of drainage and other essential services as executed."

(*a*) (*vi*) *Substitute* for existing clause :—

> " The following architects' charges do not include :—
>
> (*a*) Valuation of freehold or leasehold properties (*see* Scale 1).
>
> (*b*) Work under the Lands Clauses Consolidation Act, etc. (*see* Scale 5).
>
> (*c*) Dilapidations (*see* Scale 26).
>
> (*d*) The laying out or development of estates (*see* Scale 27).
>
> (*e*) The approval of plans (*see* Scale 28).
>
> (*f*) Land surveying (*see* Scale 30).
>
> (*g*) Repairs to and maintenance of property (*see* Scale 33).
>
> (*h*) Quantity surveying services (*see* Scale 36).

(*a*) (*vii*) *Substitute* for the second sentence the following :—

> " Where it is agreed to retain the services of consultants, the architect's fee may by prior written agreement be reduced, but in no case shall the reduction exceed one-third on the cost of the work upon which the services of the consultants are retained, provided always that the architect's fee on the cost of the whole scheme shall not be reduced by more than one-sixth."

(*a*) (*x*) *Substitute* for existing clause the following :—

> " Under these conditions of engagement the fees and charges payable to the Architect shall be in accordance with the following scale of charges, unless a higher charge is agreed between architect and client when the former is commissioned."

(*b*) *Substitute* for existing Clause the following :—

> " For taking the Client's instructions, preparing sketch designs, making approximate estimate of cost, submitting applications for licences, town planning, bye-law and/or building Act approvals, preparing working drawings, specification or such particulars as may be necessary for the preparation of bills of quantities by an independent quantity surveyor, or for the purpose of obtaining tenders, advising on tenders, and preparation of contract, nominating and instructing consultants (if any), preparing for the use of the Contractor, two copies of all drawings, specification or other particulars and of such further details as are necessary for the proper carrying out of the works, giving general supervision as defined in the conditions of engagement,

issuing certificates for payment, certifying accounts and preparing such drawings as may be required under Condition (*a*) (*v*), exclusive of the services enumerated in Clause (*f*) and Scale 36, the charge is to be a percentage on the total cost of all executed works as follows :—

(i)

Total Cost of Executed Works	*Percentage Fee*			
Up to £700 ...	10 per cent.			
£700–£1,600	9½	,,	with minimum of	£70
£1,600–£2,500	9	,,	,,	£152
£2,500–£3,400	8½	,,	,,	£225
£3,400–£4,300	8	,,	,,	£289
£4,300–£5,200	7½	,,	,,	£344
£5,200–£6,100	7	,,	,,	£390
£6,100–£7,000	6½	,,	,,	£427
Over £7,000 ...	6	,,	,,	£455

(ii) The fees set out in the scale of charges are in all cases exclusive of the cost of all prints and other reproductions of drawings and documents, travelling and hotel expenses and other reasonable disbursements.

(iii) When work is executed wholly or in part with old materials, or where material, labour or carriage is provided by the client, the percentage shall be calculated as if the works had been executed wholly by the contractor supplying all labour and materials.

(iv) In addition to a percentage on the total cost of executed works, the architect is entitled to charge in respect of all works included in the tenders, but subsequently omitted, two-thirds of the charge which would have been payable had they been executed."

(*c*) (*opening words*) After the word " agreement " *insert* the words :—

" as to the percentage fee."

(*c*) (*i*) *Amend* last line to read :—

" reduced by up to one-sixth"

(*d*) (*ii*) After " making approximate estimate of cost " *insert* " and making applications for outline town planning approval."

(*d*) (*ii*), (*iii*), (*iv*), (*v*) Before the words " estimated cost," wherever they occur, *insert* the word :—

" architect's "

(*d*) (*iii*) *Insert* after " interpretation of the clients' instructions " the words :—

" making approximate estimate of cost,"

(*d*) (*iv*) *Delete*

" by cubic measurement or otherwise "

(*f*) (iv) *Substitute* the following for existing Clause :—

" In negotiations arising from applications for licences, Town Planning, Bye-law and/or Building Act approvals and negotiations in connection with party walls, rights of light and other easements, reservations or restrictions."

(*h*) *Substitute* the following Clause :—

" In cases in which charges are based upon time occupied the minimum fee for principals' time is two guineas an hour, to which shall be added charges for assistants' time and office overheads thereon."

End. Insert two new Clauses at end, as follows :—

" (*j*) *Inspections and Reports*

For making inspections, preparing reports or giving advice on the condition of premises, the charge is on *quantum meruit* in accordance with Clause (*d*) (*vi*).

(*k*) *Litigation and Arbitration*

For qualifying to give evidence, settling proofs, conferences with solicitors and counsel, attendance in court or at arbitrations or town planning inquiries or before other tribunals, and for services in connection with litigation, the charge is based on the time occupied at the minimum rate of 3 guineas an hour to which shall be added charges for assistants' time, out-of-pocket expenses and other disbursements.

Architects acting as arbitrators are recommended to base their charges on the total time occupied in dealing with a case at the minimum rate of 3 guineas an hour to which shall be added out-of-pocket expenses and other disbursements (minimum fee 20 guineas)."

Institution Meetings

The following meetings will be held at the Institution during December, 1960, and January, 1961. Except where otherwise stated the meetings will begin at 5.45 p.m. and light refreshments will be served from 5.0 p.m.

Ordinary General Meeting, 5th December, 1960

At the ordinary general meeting to be held on Monday, 5th December, 1960, Mr. E. H. Doubleday, O.B.E. (Fellow), P.P.T.P.I., M.I.MUN.E., will speak on " Off-Street Parking."

Land Surveyors General Meeting, 15th December, 1960

A general meeting of land surveyors will be held on Thursday, 15th December, 1960. Major A. G. Bomford, M.A. (Professional Associate), R.E., will speak on "Surveying in Northern Australia." He will illustrate his talk with coloured slides.

Ordinary General Meeting, 2nd January, 1961

Mr. F. W. Delve, C.B.E., M.I.FIRE.E., will speak on " Fire Precautions in Buildings " at the ordinary general meeting to be held on Monday, 2nd January, 1961.

General Practice General Meeting, 23rd January, 1961

At the general practice general meeting to be held on Monday, 23rd January, 1961, Mr. E. C. Uren, Director of the Laing Development Company, Limited, will speak on " Some Reflections on Property Development."

ANNUAL DINNER 1961

The Annual Dinner of the Institution will take place at Grosvenor House, Park Lane, W.1, on Tuesday, 7th March, 1961, at 7.00 for 7.30 p.m. The Dinner will be held in the Great Room and no restriction will be placed upon the number of guests each member may bring.

Application forms will be despatched with *The Chartered Surveyor* for January, 1961, and when returned will be dealt with in order of receipt.

Junior Organisation

Ordinary General Meeting, Thursday, 8th December, 1960

The meeting will be held at the Institution at 6.15 p.m. when Mr. G. A. Watts, O.B.E., S.C.I.S., Executive Director of Littlewoods Stores, Limited, will give a talk on "The Modern Shop." Mr. J. D. Russell-Davis (Fellow), Chairman of the 1913 Club, will be in the Chair and will present the special prize awarded annually by the Club to the Junior Member judged to have contributed most to the Organisation's work during the last session.

Quantity Surveyors Christmas Dinner—14th December, 1960

This very popular event is to be held at the "Windsor Castle," which is adjacent to Victoria Station. The tickets are £1 0*s*. 0*d*. each ; applications, accompanied by a remittance and giving names of guests, should be sent to Mr. R. W. Hayward, A.R.I.C.S., c/o Messrs. J. A. Burrell, 7, Gray's Inn Square, London, W.C.1.

Ordinary General Meeting—5th January, 1961

The subject of this meeting is the "Channel Tunnel" and the speaker is Mr. H. J. B. Harding, B.SC., M.I.C.E., Vice-President of the Institution of Civil Engineers and British Consultant to the International Study Group on the channel tunnel. The Chairman will be Mr. Cyril Sweett (Fellow). This meeting is being organised by the Junior Organisation Quantity Surveyors, but tickets are not required. It will commence at 6.15 p.m. and will be preceded by a buffet tea from 5.30 p.m.

Fédération Nationale de Métreurs-Vérificateurs Patentés

In December, 1959, an invitation was received from the Fédération Nationale de Métreurs-Vérificateurs Patentés (the French Quantity Surveyors Institution) to attend the official luncheon of the Federation held in Lille on Saturday, 21st May, 1960 ; and thus to re-establish the friendly relations between the Institution and the Federation which had existed before the war.

The President invited Mr. William James, the Chairman of the Quantity Surveyors Committee, to take his place and, although Mr. James was visiting the Scottish Branch in Edinburgh on 19th May, he agreed to go.

Mr. James holds a modest opinion of his powers of French speaking and was glad to hear of a quantity surveyor in Germany, Mr. John Hefford (Professional Associate), who wished to attend the meetings of the Congress and who could join him at the Banquet and act as an interpreter when required.

Mr. James attended the last session of the Congress on the morning of 21st May and was introduced to the meeting by the President of the Federation, Monsieur H. Verd. This meeting discussed the best method to be adopted in order to register the profession and obtain Government recognition. The need to establish suitable education and training facilities ; to publicise more widely the quantity surveyor's services and to distinguish them from those of architects and other surveyors ; to rationalise the various standard schedules of prices and methods of measurement ; and to cover by insurance the guaranteeing of accuracy of bills of quantities were also discussed. The problems exercising the minds of the French surveyors are not, therefore, very different from those which were uppermost in the minds of English surveyors at an earlier stage of the profession's development here.

The Banquet was held in Lille City Hall. A preliminary meeting was held at which the Deputy Mayor of Lille spoke to welcome the members of the Congress, and in which he made a reference to the Institution and to Mr. James' presence. The President of the Federation replied. At the Banquet, the chief guest, the Departmental Director of Building (representing the Minister of Building) gave an address. Mr. James addressed the members in French and presented the President with a silver cigarette box, suitably inscribed, to commemorate the occasion. Mr. James felt that his visit had been worthwhile in cementing relations between English and French surveyors. He and Mr. Hefford have since been invited to accept nomination (for ratification next year) as honorary members of the National Federation.

Mr. James has written a full account of his visit which has been placed in the Institution's library. The appendices to this account include an English translation of the matters discussed at the Lille Congress.

Branch Notices

BRANCH MEETINGS

Warwickshire, Worcestershire and South Staffordshire Branch.—Annual Dinner and Dance at the Grand Hotel, Birmingham to be held in conjunction with the Junior Section of the Chartered Auctioneers and Estate Agents Institute, on Tuesday, 13th December, 1960.

Sussex Branch.—Wednesday, 14th December, 1960, at 6.0 p.m., at the Hotel Metropole, Brighton. A film entitled "How a House was Built" will be shown.

BRANCH REPORTS

Lancashire, Cheshire and Isle of Man Branch.—The Branch held the first general meeting of the session on Tuesday, 27th September, 1960, at the Lyceum Club, Bold Street, Liverpool. A well attended meeting heard a paper entitled "Economic expansion and land values" from Mr. G. CLAYTON, M.A., the Senior Lecturer in Economics at the University of Liverpool.

Mr. CLAYTON, in a very able and interesting paper, discussed the wide range of economic effects on land and the trends apparent since the turn of the century which showed that some form of planning of land uses was essential in

modern society. He also surveyed future possibilities and the problems which would arise from the increased population and the tendency to allow more individual dwelling and working space than hitherto. He prophesied that by the year 2,000 the area of land taken up by agriculture would be approximately 20 per cent. less than in 1900 but that, with increased efficiency and improved agricultural methods, there should be no appreciable loss in agricultural production.

With careful planning the rate of urban growth could be absorbed without undue increase in values, but Mr. CLAYTON thought that we should have to re-think the various policies which were at present restricting development and in particular the green belt principle must be made more flexible. In addition to this more new towns and an increase in the town development schemes would have to be seriously considered and he also felt that any logical legislation would have to provide for the thorny subject of betterment. The final requirement for the future he felt was a radical re-organisation and reform of the present local government system which was far too parochial in its outlook and consequently was acting as a serious brake to progress.

A vote of thanks to Mr. CLAYTON was proposed by Mr. INGHAM, Secretary of the junior members section, and seconded by Mr. W. HARVEY ELIAS.

Ghana Branch.—On 30th September, 1960, the Ghana Branch held its Annual Cocktail Party at the Ambassador Hotel. The Chairman, Mr. J. P. CHALKE (Fellow), greeted the 92 guests and members. Among the official guests were The High Commissioner for the United Kingdom and Lady Snelling, and Major General and Mrs. H. T. Alexander.

All Branches of the Institution were represented; members' guests included a variety of the professions engaged on the extensive development of Ghana.

BRANCH OFFICERS AND COMMITTEES

Cambridgeshire, Huntingdonshire, Norfolk and Suffolk Branch.—At the Annual General Meeting of the Branch the following Officers and Committee were elected for the Session 1960-61 : *Chairman*, Mr. J. T. BOARDMAN ; *Vice-Chairman*, Mr. J. W. DRAPER (Fellow) ; *Honorary Secretary*, Mr. J. L. FIELDING (Fellow) ; *Member of Council*, Mr. H. LACY SCOTT (Fellow) ; *Committee*, Messrs. E. B. THISTLETON-SMITH, E. J. SMITH, J. LACY SCOTT, C. A. GOLDING and P. C. GRAY (Past Chairmen) (*ex-officio*) ; Messrs. A. R. BARTON, G. B. BROWN, L. H. CASTON, PAUL L. HAWKINS, I. J. SWANN and N. H. P. TURNER (Fellows) and Messrs. W. G. MARRIOTT, I. L. MORRIS and L. G. ROBINSON (Professional Associates) ; *Sub-area Secretaries*, Messrs. R. C. GIBSON and P. R. PANK (Fellows) and Mr. D. T. MARSHALL (Professional Associate) ; *Quantity Surveyors' Representatives*, Messrs. J. V. R. CULLY and G. A. LEWIS (Fellows) ; *Honorary Secretary, Agricultural Division*, Mr. W. P. HALL (Fellow) ; *Honorary Treasurer and Building Surveyors Representative*, Mr. R. D. WORMALD (Professional Associate) ; *Junior Branch Representatives*, Messrs. P. E. COKER and M. J. WINTER (Professional Associates) ; *Benevolent Fund Steward*, Mr. H. J. LOWE (Fellow) ; *Honorary Auditors*, Messrs. S. G. FLICK and F. K. OGDEN (Fellows).

Yorkshire Branch.—At the Annual General Meeting of the Branch the following Officers and Committee were elected for the Session 1960-61 : *Chairman*, Mr. J. W. RIDYARD ; *Vice-Chairman*, Mr. C. HENDERSON (Fellow) ; *Honorary Secretary and Treasurer*, Mr. F. A. RICHARDSON (Fellow) ; *Honorary Assistant Secretary*, Mr. D. F. HINDLE (Professional Associate) ; *Members of Council*, REX PROCTER and W. H. ROTHWELL ; *Honorary Fellow*, Mr. C. SIMPSON ; *Committee*, Messrs. W. MOORE, A. P. HOLDSWORTH, C. E. JOHNSON, H. COLEY and J. R. MILLER (Past Chairmen) (*ex-officio*) ; Messrs. J. E. BELLIS, C. H. BURTT, R. C. CROSSLEY, H. LANE FOX, N. W. GRANGER, W. F. HIRST, S. G. LEE, R. G. LYLE, O. W. ROWNTREE, C. L. SMITH, I. SMITH, J. G. STANILAND, K. WARDELL, J. WATSON and E. WALMSLEY (Fellows) and Messrs. A. W. C. BARD, C. F. BECK, R. G. COUSINS, G. E. M. HILDRED, E. LEVITT, L. T. D. MELVILLE, A. NEWTON, R. M. STRANACK and G. W. SUTCLIFFE (Professional Associates) ; *Agricultural section : Chairman*, Mr. J. T. RICHARDSON (Fellow) ; *Vice-Chairman*, Mr. N. W. GRANGER ; *Honorary Secretary*, Mr. R. M. STRANACK ; *Building and Quantities Section : Chairman*, Mr. J. J. CAVADINO (Professional Associate) ; *Vice-Chairman*, Mr. J. A. CHARTER (Fellow) ; *Honorary Secretary*, Mr. H. LANE FOX ; *Mining Section : Chairman*, Mr. J. S. HOWCROFT (Professional Associate) ; *Honorary Secretary*, Mr. E. LEVITT ; *Junior Branch Representatives*, Mr. J. A. CHARTER (Fellow) and Messrs. J. M. BELLIS and P. WARDMAN (Professional Associates) ; *Benevolent Fund Stewards*, Messrs. J. R. MILLER, C. HENDERSON, R. G. LYLE and E. STEPHENSON.

Personal Announcements

Mr. A. F. ARNOLD (Fellow), F.A.I., senior partner in the firm of Messrs. ARNOLD, SON AND HEDLEY, of 31, Prince of Wales Road, Norwich, has retired from practice owing to ill-health. Mr. G. A. HOCKLEY (Professional Associate), F.A.I., will continue to practise as sole partner from the same address. As from 30th September, 1960 the style of the firm has been changed to Messrs. ARNOLD, SON AND HOCKLEY.

Messrs. BAKER, MALLETT AND PARTNERS, quantity surveyors, of Grosvenor Gardens House, Grosvenor Gardens, London, S.W.1, and 54/56, Albert Road, Middlesbrough, have taken into partnership Mr. E. V. HALE (Professional Associate). Mr. F. P. C. CHAMBERS (Professional Associate) and Mr. K. A. HALE (Professional Associate) have become Associates of the firm.

Mr. W. E. BOTTOMLEY (Fellow) has relinquished his partnership with Messrs. WAKEMAN, TROWER AND PARTNERS, and has set up in practice under his own name at 4, Great Queen Street, Kingsway, London, W.C.2.

Messrs. BRADSTREET AND COMPANY, of 419 and 421, Hendon Way, Hendon Central, N.W.4, and at Mill Hill, have taken into partnership as from 1st November, 1960, Mr. K. T. WOOD, B.SC. (Est. Man.) (Professional Associate), F.A.I. The style of the firm remains unchanged.

Messrs. C. BRIDGER AND SONS, of Leatherhead, Ashtead, Bookham, Tolworth, and Guildford, have opened an office at Station Approach, Epsom, Surrey, and have taken into partnership Mr. CLIVE N. A. STANFORD (Professional Associate), A.A.I., who has been with the firm for the last five years.

Following the death on 2nd October, 1960, of Mr. B. C. BRITTON (Fellow), of Messrs. COLLINS AND BRITTON, chartered quantity surveyors, of 29, Bennett's Hill, Birmingham, 2, and 73A, Bradford Street, Walsall, Staffs, the remaining partners, Mr. W. W. APLIN (Fellow), Mr. K. G. CHAPMAN (Fellow), and Mr. A. E. BURT (Fellow) will continue the practice under the same name.

Mr. ALLAN HALL BROWN (Professional Associate), A.A.I., has been taken into partnership by Mr. J. GRAHAM DODDS, F.A.I., and Mr. ARTHUR S. BROWN, F.A.I., partners in the firm of Messrs. JAMES DODDS AND BROWN, chartered auctioneers and estate agents, of 25, High Street, Stockton-on-Tees. The style and address of the firm remain unchanged.

Messrs. CLUTTON, chartered surveyors of 5, Great College Street, Westminster, London, S.W.1, have opened an office at 48, Pelham Street, Kensington, London, S.W.7 (Knightsbridge 3651) where the partner in charge is Mr. J. A. HEWENS (Fellow), F.A.I.

Messrs. CURLEY AND EDWARDS, chartered quantity surveyors, of 18, Eldon Square, Newcastle upon Tyne, have taken into partnership Mr. R. P. DUNFORD (Professional Associate) with effect from 1st August, 1960. The style of the firm remains unchanged.

Following the death of Mr. HENRY F. DUNSTER (Fellow), F.A.I., founder and senior partner in the firm of Messrs. HENRY F. DUNSTER AND MORTON, of 26, Kings Road, Reading, the practice will be continued by the remaining partners, Mr. D. J. MORTON (Fellow), F.A.I., and Mr. I. G. HAMMOND, A.A.I.

Mr. D. F. GREAVES (Professional Associate), A.M.T.P.I., is relinquishing his appointment with Messrs. STIMPSON, LOCK AND VINCE, of Watford, and is commencing practice on his own account from "Belsize Farm," Nr. Sarratt, Rickmansworth, Herts. (Kings Langley 4256.)

Following the death of Mr. R. H. T. LOWE (Fellow) the partnership between Mr. R. E. N. LOWE (Fellow) and Mr. R. H. T. LOWE (Fellow), and Mr. L. C. W. RUTTER (Fellow) has been dissolved. Mr. R. E. N. LOWE will continue to practise as Messrs. R. E. N. LOWE AND CO., chartered quantity surveyors, as before from Cross Keys House, 56, Moorgate, London, E.C.2, and Mr. L. C. W. RUTTER will continue the practice in Birmingham which he carried on with Mr. R. H. T. LOWE, the style of the firm remaining unchanged as Messrs. RUTTER AND LOWE, chartered quantity surveyors, 171, Alcester Road, Moseley, Birmingham, 13.

Mr. JOHN MONKHAM (Professional Associate), formerly Valuation Officer, Inland Revenue, Doncaster, has been appointed Assistant Rating Surveyor to Messrs. COURTAULDS LIMITED, and will be based on Manchester.

Mr. ANTONY L. SMITH (Professional Associate) has set up in private practice as a chartered quantity surveyor, at 3, Hickmans Close, Lindfield, Haywards Heath, Sussex. (Lindfield 3323.)

Mr. THOMAS E. TEAGUE (Professional Associate), A.A.I., has relinquished his appointment with the Licensed Property Section, Valuation Office, Inland Revenue, and set up in practice on his own account. The style and address will be THOMAS E. TEAGUE, chartered surveyor, chartered auctioneer and estate agent, 46, Henleaze Avenue, Westbury on Trym, Bristol. (Bristol 628207) and 25, Park Road, Gloucester. (Gloucester 23131.)

Messrs. JOHN WATSON AND CARTER, chartered quantity surveyors, of Cogan Chambers, Bowlalley Lane, Hull, and also at Grimsby and Huddersfield, have opened a branch office at 96, Piccadilly, London, W.1, under the management of Mr. J. E. D. BEETON (Professional Associate).

Mr. C. J. PRATT (Professional Associate), F.L.A.S., has relinquished his appointment with Messrs. CURTIS AND HENSON, Banbury, on being appointed Agent for Mr. G. E. H. PALMER'S Priors Court Estate. He took up his appointment in September, 1960, and his address is Estate Office, Hermitage, Newbury, Berkshire.

Mr. R. M. PRICE (Professional Associate), A.I.ARB., of 77, Wigmore Street, and Mr. BRIAN S. WEST (Professional Associate), of 41, Wigmore Street, have amalgamated their practices and entered into partnership practising from 77, Wigmore Street, London, W.1, under the style of Messrs. PRICE AND WEST, chartered quantity surveyors. Their telephone numbers remain unchanged at Welbeck 4084 and 2705.

Mr. T. C. WEST (Fellow) relinquished his appointment as Estate Agent and Rating Surveyor to the London Transport Executive on the 30th September, a post which he held for 20 years. He is succeeded by Mr. J. I. MCGILLIVRAY, B.SC.(EST. MAN.) (Professional Associate), A.A.I.

Examiners' Reports, 1960

The following extracts are from reports by the examiners for the First, Intermediate, Final, Direct Membership and Housing Managers Certificate Examinations held in 1960. *These reports will be completed in a forthcoming issue. The examiners' original reports are filed at the Institution and may be seen in the Library by arrangement by any properly authorised representative of a teaching establishment who may wish to consult them.*

GENERAL

In all papers candidates should confine their answers to the questions asked. No marks are given for irrelevant knowledge. The examiners had no comment to make on those papers which are not mentioned in the reports.

FIRST EXAMINATION

Book-keeping

The improvement over the past year or two has been maintained but the results, overall, are not good. The questions were straightforward and, in the time given, too many papers were incomplete. The phrase "no time to finish" written in by quite a number of candidates was pointless—it only confirmed that they did not know the answers.

Surveying and Levelling

Candidates' answers show that they do not read the questions properly, that they have done insufficient practical work, and that they do not plan their answers before writing them.

Mensuration and Trigonometry

Scripts varied enormously and it is difficult to generalise. Handwriting was legible but candidates generally fail to set out the work in a clear manner, and too often the answers to a question have to be searched for among a maze of calculations—in spite of the fact that the general practice appears to be to work out the solution on rough paper and then

rewrite for the examiner. In so doing, important working is sometimes omitted in the fair copy and the means whereby an incorrect answer is obtained cannot be checked by the examiner.

Candidates should pause and ask themselves if the answer to their calculations is within limits of possibility—*e.g.* the third side of a triangle, the other sides of which are 350 and 90 feet, must lie between 260 and 440 feet. Answers to the question on the number of bricks in a stack 40 feet by 8 feet by 5 feet (question 1) varied from 50 bricks to 2,655,455,712,000 bricks !

Building Construction (I) 1st Paper

Questions 2 and 3 were in general poorly answered. Many candidates did not know what is meant by single Flemish bond or how to apply the bond to a jamb. The detailing of a metal window was inadequately shown by the majority of candidates.

Building Construction (I) 2nd Paper

Generally this paper was satisfactorily answered, except question 4. In this question candidates showed a lack of knowledge on the essential characteristics of the three mortars stated.

Draughtsmanship

A lack of experience in the enlarging and reducing of plans, especially regarding photographic methods was shown. Errors were made due to inaccurate scaling; candidates should make themselves conversant with all scales and not only the conventional ones. Inattention to detail—omission of scale, north point, and so on—in a number of cases detracted from the finished work. A number of candidates were not conversant with the meaning of certain terms, such as "pentagon" and "isometric." There was lack of practice in some cases in isometric drawing.

Central and Local Government

Many candidates who attempted question 4 showed little appreciation of the real meaning of delegated legislation. Few candidates attempted question 9. A great many candidates who answered question 10 thought that the District Auditor was an official appointed by the local authorities themselves.

Law of Property (I)

Most candidates had a sound grasp of the subject, and there were some outstanding papers.

Economics (I)

The answers throughout were well and clearly expressed and legibly written, though spelling in many cases was very bad.

Law of Contract and Tort

The answers generally were legible and grammatical but very badly set out. The lack of orderly arrangement and of any attempt to marshall facts and ideas, and set them out in logical sequence, frequently resulted in candidates inadvertently omitting essential points from their answers. This was particularly noticeable in the question on discharge of contracts in which a majority of candidates forgot to mention performance.

INTERMEDIATE EXAMINATION

Forestry (I)

Textbooks might be read more carefully—on the whole there is little evidence of practical experience or of powers of observation.

National and Local Taxation

Examinees should copy the examiner's spelling even though they may consider it incorrect!

Accounts and Records

The chief criticism of the candidates' work on preparation lies in the fact that much too much stress appears to have been made of "cash" transactions. Transactions on "credit" were not fully understood. This was especially noticed in question 1 where the insurance transaction was almost universally misunderstood.

Valuation (Elementary)

In spite of the reduction in the number of questions, the percentage of passes was much the same as in previous years. The only noticeable effect was that candidates who had prepared for the subject demonstrated more clearly their superiority over those who had not. Candidates in the Town and Country Planning and Building sections must take this subject more seriously.

Law of Property (III)

Candidates did not read the questions. In answer to question 2 many candidates listed the various parts of a lease, or explained the requirements of section 40 of the Law of Property, 1925; in question 9 many explained how to calculate the appropriate factor; and in question 10 many explained the provisions as to obtaining compensation for improvements carried out by the tenant.

Town and Country Planning (Law and Procedure)

Most candidates showed a good general knowledge of the subject. Many were surprisingly weak on the subjects of development value, and the functions of the Lands Tribunal.

Building Construction (II) (1st paper)

The paper generally was fairly well answered. Candidates should develop the capacity for logical thought and concise expression as this will assist them considerably in their answers.

The general presentation was reasonable and in many cases good. Candidates should try to improve their drawing and sketching ability.

Building Construction (II) (2nd paper)

On the whole this paper was reasonably well answered. A number of candidates attained quite a good standard. The standard would have been even better but for the poor answers to question 3. Candidates must try to develop the capacity for logical thought and clarity of expression. The general presentation was reasonable although not quite so good as in Paper I. Candidates would again be advised to try and improve their drawing and sketching ability.

Valuation (Typical) (1st paper)

More care is required with regard to choice of interest rates which are consistent. Candidates seemed obsessed by the incidence of income tax on sinking fund, allowing this in every possible case whether it was applicable or not, and in particular candidates did not seem to know how to allow for this in the case of varying income. When asked to discuss the principles on which a particular type of valuation was based, nearly all candidates set out the methods of valuation but did not refer to the principles.

Valuation (Typical) (2nd paper)

By their answers to question 3A, and by their treatment of other questions where the problem arose, far too many candidates demonstrated their inability to comprehend the meaning and structure of single rate tables of years purchase as compared with dual rate tables of years purchase. A large

number of candidates were also unable to distinguish between "virtual rent" and "rental value," and in consequence committed the elementary error of using a "virtual rent" to arrive at capital value.

If greater care were taken with these fundamental matters when preparing for the examination the general standard of the papers would be much higher.

Drainage and Sanitation

More attention, during the preparation period, should be given to the working out of problems of gradient, velocity and discharge, depth of manholes, water head in drains with the corresponding pressure per square inch.

Urban Estate Records and Accounts

Candidates should pay more attention to arithmetic in questions involving figures. There is a tendency for candidates to write what they know on a particular subject in answer to a question which requires the application of knowledge to a particular set of circumstances. The standard of spelling and English grammar is below a reasonable standard for an Intermediate examination.

Management (Typical) (1st and 2nd papers)

Candidates clearly showed that they had failed to keep up-to-date in their reading.

Town and Country Planning (Typical) (1st paper)

A number of candidates failed to deal with items specifically demanded by the question. For example, in answering question 1, several said nothing about the social and economic conditions reflected in the forms of mediaeval, renaissance and 19th century towns. There were also a number who could not produce sketches of any merit. Artistic skill is not expected but it is essential to be able to illustrate ideas in a general way in sketch form. Much more practice is clearly needed to acquire the elements of a skill useful to every surveyor. There was much grotesque ignorance of recent history. In answering question 5 (relating to important events in the planning history of this country in the last 100 years) few thought it was worthwhile to mention the Planning Acts of 1943 and 1944, the Distribution of Industry Act, 1945, or the National Parks Act, 1949. One candidate thought Patrick Geddes was a man of the renaissance, another confused Patrick Abercrombie with Ebenezer Howard, while a third evidenced the Bastilles of South-west France as examples of renaissance planning. Despite all this, the general standard was encouragingly high, and several candidates had exemplary understanding and knowledge of the subject.

Town and Country Planning (Typical) (2nd paper)

Nearly all candidates showed that they had prepared themselves thoroughly in terms of acquiring information, but too few showed equal appreciation of the realities behind customary and official forms of expressing planning ideas. A county map, for example, is not the only form in which a regional plan can be prepared. Some candidates were very verbose, and had little regard for relevance. Question 6, requiring a sketch plan of a town, was very well answered by most of the candidates who attempted it.

Economics (II)

With few exceptions, the standard of candidates' work was very mediocre. Quite evidently most students sitting this examination do insufficient reading, and tend to leave *thinking* altogether until the day of the examination. This tendency is much to be deplored, especially when it relates to questions such as economic aspects of road congestion, re-location of business firms and development area policy.

Measurement of Builders' Work (I)

Few candidates appreciated the desirability of making headings and sub-headings—this is of particular use to the examiner as well as useful for reference in practice. Some candidates write verbose descriptions in an attempt to cover up lack of knowledge. A general lack of practice in this subject is indicated ; much of the work lacked order and was cramped.

London Building Acts and Building Bye-laws

The percentage of passes was higher than usual in this subject, but a great number were border-line cases and there were few of outstanding merit.

Candidates should restrict their answers to the question matter. Marks are not given for irrelevant provisions of the Acts or Bye-laws.

Drainage and Sanitation

Most candidates would benefit in total marks by a quick look over the question paper before starting, allocating so many minutes per question. This might save the error of answering a well-known one at great length, and then rushing over or omitting the rest.

Heating, Ventilation and Electrical Installation

It would appear from the results that the majority of candidates used the same textbooks and references regardless of area. The answers given were therefore rather stereotyped and tended to be written in the authors' rather than the candidates' vein. Candidates would be well advised to broaden their knowledge of the subject and to supplement their classwork with further reading.

Building Construction (II) (Typical) (1st paper)

Candidates tend to "follow the book," and I think at least one question every year should be set to encourage a little individuality in thinking.

Question 1 (brick bonding) was, I think, over-marked and this accounts for a relatively high proportion of passes this year, and to a large extent this off-set the losses which candidates would have suffered had it been necessary for them to rely more on question 2 for marks.

Building Construction (II) (Typical) (2nd paper)

As usual there was a tendency to lose marks on questions requiring an application of textbook knowledge. For example, I am sure that 99 per cent. of candidates know that a damp-proof course is necessary in a building—however, given a question involving a fireplace and chimney—75 per cent. of candidates omitted a D.P.C.!

Quantities (I) (1st paper)

Candidates failed to appreciate that an important aspect of taking-off is the ability to set down the dimensions and descriptions in a clear and systematic manner.

The proper care and thought required in determining the major dimensions of the roof were not given. All the major dimensions in this example should have been calculated from the information shown on the drawings and the candidate's solution should have been supported by legible waste collections.

Candidates did not seem to realise that items of taking-off should be complete in description and readily understandable so that they can be worked-up to form part of the bills of quantities.

Quantities (I) (2nd paper)

The general standard of abstracting and billing was fairly good. The most important improvement required from candidates is in the actual presentation of the abstract, general layout and grouping with no unnecessary waste of

paper coupled of course with the correct heading and numbering of sheets—this is most important.

A large number of candidates showed a lack of basic knowledge in making numerous mistakes in the squaring of dimensions.

Building Construction (I) (1st paper)

The results for this paper were disappointing for what was a straightforward set of questions, particularly in question 4 which was very inadequately answered.

Building Construction (I) (2nd paper)

The standard reached by the majority of candidates was very average.

Mining Law

About half of the papers showed that candidates were reasonably well prepared. They are not properly familiar with the commonplace mining law required by a surveyor, particularly with regard to the 1957 Subsidence Act and the surveying matters arising under the Mines and Quarries Act, for which there is no excuse.

FINAL EXAMINATION AND DIRECT MEMBERSHIP EXAMINATION (COMMON PAPERS)

Arbitrations and Awards (Final)

The general performance was good this year, and most candidates attained quite a high standard in their answers.

Arbitrations and Awards (Direct Membership)

A reasonably good standard was attained in most papers.

Agricultural Valuation (Final)

The answers emphasise that the practical side of the subject has more attraction for the candidate than the theory. Questions calling for straightforward practical knowledge were on the whole well answered, but the theory in general was poor. It was noticeable that little serious thought had been given to the subject in its broad aspects, and questions inviting discussion brought little evidence of any real grasp of varying points of view.

Agricultural Valuation (Direct Membership)

These papers were disappointing both with regard to evidence of practical and theoretical knowledge of the subject. The impression given is that of a superficial approach without much consideration of basic principles involved.

Forestry (Practice)

The general standard of knowledge was higher than usual. Greater signs of practical knowledge and ability to express personal opinion were shown.

Outdoor Forestry Test

The general level of knowledge appeared higher than usual, and all candidates seemed to have taken the subject very seriously.

Construction and Maintenance of Rural Buildings (1st paper) (Final)

Generally the paper was reasonably well answered. The general presentation was fair, although a few candidates should try to improve their sketching and drawing ability.

Construction and Maintenance of Rural Buildings (1st paper) (Direct Membership)

This question was not very well answered generally and more adequate preparation for the examination was indicated. Again drawing and sketching could be improved.

Construction and Maintenance of Rural Buildings (2nd paper) (Final)

In general the paper was not so well answered as the first paper. The general presentation was fair and drawing and sketching reasonable, although improvement is needed in some cases.

Construction and Maintenance of Rural Buildings (2nd paper) (Direct Membership)

On the whole this paper was not very well answered. More adequate preparation for the examination is required.

General presentation was reasonable, although drawing and sketching could be improved.

Law of Compulsory Purchase and Compensation (Final)

A few candidates lost marks in question 2 by careless reading of part (*b*). Question 5 was not well answered by most candidates. Far too many candidates misunderstood the effect of designation for compulsory purchase. The arrangement of the letters was fair with one or two outstanding examples.

Agriculture (II)

Some candidates were too verbose. The necessary information given concisely was lacking in the answer papers of these candidates. Such candidates would benefit from training in extracting information and presenting it in precis form during their period of training.

Law of Highways and Housing

There seemed to be, in many cases, a general smattering of the subject rather than systematic preparation.

Estate Development and Site Planning (Final)

Many candidates who answered the first alternative in question 7 ignored the requirement to "say to what extent these have been respectively overcome and taken advantage of in the best contemporary development." A number included "English informal" and "non-rectangular geometrical" as types of residential layout which have been evolved since the war.

Two of the most prevalent faults in question 1 were a lavish use of direct crossroads within the neighbourhood, and a draughtsmanship untidy to the point of illegibility.

Estate Development and Site Planning (Direct Membership)

The general standard was encouragingly higher than in previous years, though answers to question 1, the compulsory drawing question, were still rather unsatisfactory. Most candidates clearly need to acquire more knowledge about neighbourhood planning, and to practise the kind of semi-diagrammatic draughtsmanship required to answer such questions well.

Valuation (Advanced) (Typical) (1st paper) (Final)

Again this year a general lack of knowledge was shown of the principles which should be followed in making valuations for compensation purposes. Generally, in answering questions, candidates tended to make a lot of unnecessary assumptions which only resulted in making the questions harder, and so took longer to answer. As a result candidates often failed to attempt sufficient questions properly.

Maintenance and Repair of Buildings (Final)

The general need is for a closer study of building construction and the causes and effects which make repair work necessary.

Maintenance and Repair of Buildings (Direct Membership)

Candidates would do well to realise that a sound knowledge of elementary building construction is essential for the preparation of a specification of maintenance repair work in

order to convey to a builder the extent and nature of the work, the materials to be employed and the method of carrying it out.

National and Local Taxation (*Final*)

In a number of questions candidates' answers failed to show the relationship between general rules and principles on the one hand, and their practical application on the other.

National and Local Taxation (*Direct Membership*)

It is difficult to generalise about so few papers, but several candidates failed question 6 due to a complete lack of knowledge of the rules for assessment of property for schedule A tax, a shortcoming which was also apparent in the answers to question 7.

Management Practice (*Typical*) (*1st paper*) (*Final*)

Only three candidates sat this paper and no general conclusions can be drawn.

Management Practice (*1st paper*) (*Direct Membership*)

The general standard was better this year than it has been in the last five years, but few candidates had much idea of how to set about preparing evidence for submission to the Central Housing Advisory Committee. The standard of drawing in the sketch plans included in answers was much improved on the work of recent years.

Management Practice (*2nd paper*) (*Final*)

On the whole, the work was fairly well done but could have been improved with a closer study of elementary building construction—in particular a better knowledge of the treatment of a bulged wall.

Management Practice (*2nd paper*) (*Direct Membership*)

There was some evidence of carelessness, and candidates would have done better if they had read properly and understood the questions before attempting their answers.

Housing Finance (*Final*)

One of the two candidates seems to have studied the subject from very out-of-date sources.

Housing Finance (*Direct Membership*)

The answers indicate adequate preparation.

Town and Country Planning Practice (*Typical*) (*1st paper*) (*Final*)

Marks will continue to be lost if candidates fail to *read the questions*. Question 5(ii) is a particular case. Question 7 showed up lack of practice in dealing with what is a common problem.

Town and Country Planning Practice (*1st paper*) (*Direct Membership*)

Again, I must draw attention to the need to *read the questions*. There were no correct answers to question 5 (ii). The answer to question 7 showed lack of practical knowledge in dealing with a common problem.

Town and Country Planning Practice (*2nd paper*) (*Final*)

In general, candidates were unsuccessful because they failed to answer the question—(*e.g.* question 6 asked for the application of certain principles to the preparation of Town Maps : in many cases this was omitted)—and because they answered with vague phrases and planning jargon. To say "I myself am in agreement with the control of industry since it is for the public good," without any reasoned argument, does not earn marks.

Town and Country Planning Practice (*2nd paper*) (*Direct Membership*)

In general, the standard was disappointing—no candidate achieved as high a mark as that of the best candidates taking the same paper in the Final Examination. There were few illustrations from practice.

Building Construction (*III*) (*Typical*) (*1st paper*) (*Final*)

Many of the candidates who showed satisfactory knowledge of the more advanced aspects of building construction submitted very poor sketches for question 3 which, although carrying nine marks, dealt with material that ought to have been thoroughly mastered at Intermediate stage if not earlier.

Building Construction (*III*) (*Typical*) (*2nd paper*) (*Final*)

The paper was generally well answered but some examinees were not adequately prepared to sit the examination.

Building Construction (*III*) (*1st paper*) (*Direct Membership*)

The standard of draughtsmanship and general presentation was noticeably higher than for several years past. In a very few cases, the work was so poor both in content and presentation, that the candidates appeared to have undertaken little, if any, preparation for the examination to augment such experience as they may have had.

Building Construction (*III*) (*2nd paper*) (*Direct Membership*)

Draughtsmanship generally was poor and knowledge of construction not of a standard to be expected of this type of examinee. A lack of preparation was clear in many cases.

Theory of Structures

Far too many students became confused in their use of units of length and weight—this resulted in answers which were patently impossible.

Specifications

A surprising number of candidates answered all three questions in full instead of two, apparently with the object of leaving the examiner to select the two in which they achieved the highest marks, although the examiner might have taken a different view !

Quantities (*II*) (*Typical*) (*1st paper*) (*Final*)

There were very few papers indeed in which the rules of the Standard Method of Measurement were not broken, either in letter or the spirit—or both. In particular, many candidates obviously did not know which concrete items should be measured *cube* and which *super*.

In general, it is obvious that intelligent application of rules of measurement is not taught and candidates therefore tend to overlook items requiring special mention, such as the existing duct along one side of the building in the paper.

Quantities (*II*) (*1st paper*) (*Direct Membership*)

The standard here was lower than in the Final Examination and the same criticism applies with even more force as the candidates are supposed to be experienced surveyors.

Quantities (*II*) (*2nd paper*)

Candidates did not seem to have been taught the importance of clear and concise descriptions to enable the estimator to appreciate fully what he has to price. The "spot" items were poorly and often inaccurately described. Many candidates, instead of describing temporary items of protection, were more concerned with telling the contractor of the penalties he might suffer if the building was damaged. In fact, too often the candidate, in his descriptions, treated the contractor with a kind of military contempt instead of helping his estimator to price the work to be done. Generally the paper showed a low standard.

Analysis of Builders' Prices (*Final*) *and* (*Direct Membership*)

The majority of candidates attempted the questions relating to straightforward analyses with confidence and a high degree of ability.

In the case of question 7, which was a *pro rata*, few candidates employed the correct principle of analysing the *whole* of the original price. Most were content to deduct from the builders' price the cost of operations not required and then to add the cost of additional operations required by the V.O., each candidate employing labour values and an assumed charge for overheads and profit which may bear no relationship to those used by the contractor.

If this method is adopted, the assumed cost of the work common to both the original description and the variation order may be completely disproportional to the true cost.

Geology (*Applied*)

It is interesting to note that none of the candidates attempted question 2, and only two candidates attempted question 6. Although one cannot be certain, this suggests that candidates have had little opportunity for practical study of geological specimens.

Mining Surveying (*Advanced*) (*Typical*)

Candidates' work was sharply divided—very good and very poor. Of the 48 per cent. who failed to gain the pass mark in this subject, there was a marked weakness in mathematics and advanced surveying, especially in regard to the answers to questions 1 and 3, and a knowledge of grammar and spelling was often lacking in the answers to descriptive questions.

Mineral Leases, Covenants and Assignments

Candidates as a whole gave a better account of themselves in those questions which required discussion, *i.e.* questions 2 and 5, than in those which required specific answers upon points categorically dealt with in their study papers. Most could answer question 1 well, while the most marked failure was in question 4. Question 2 in particular produced some interesting judgments—notable perhaps more for their desire to see justice done than for their ability to find law upon which to found the decision !

Mineral Valuation (*Principles*)

A more careful preparation of answers to less than the full quota of questions could achieve better marking results, than hastily prepared answers to all questions.

Mining (*Principles*)

Information given in a question should be utilised by the candidates to illustrate the answer. Marks were lost through unnecessarily vague answers.

Report Writing (*Mining*)

The question was a very full one, but it was purposely so designed in an endeavour to strike at least one familiar note in the minds of all candidates. In two or three candidates this led to over-stimulation and a resultant loss of balance, at the same time revealing capacity where interest and experience lay.

Some papers exhibited a satisfactory breadth of knowledge and a measure of the orderly skill and intelligence required to apply that knowledge to the matter in hand, and—more difficult—to explain the points to a lay mind. In this two or three exhibited the imagination and power of expression—both invaluable—which enable a report writer to put himself in the position of the recipient and appreciate what he wishes and needs to know, and in what terms this can best be presented. Such products were a pleasure to read, having apparently been written not only with understanding, but with interest and enthusiasm.

The general standard seems to have improved, but some reports were too short and too limited in design. One or two even failed to record accurately the brief outlining facts which the paper contained. It was disappointing to discover how few candidates could, or felt it advisable to make sure their client knew about the basic principles of the Petroleum (Production) Act, 1934. Jargon was largely avoided, and the few slang and colloquial phrases would, one hopes, disappear on revision.

Support and Subsidence

When information is given in a question, candidates should realise that such information should be used to illustrate answers, avoiding generalisations when specific answers are called for. The majority of candidates have a superficial knowledge of the subject but evidence of practical application of theories and results of research are not evident in some of the answers.

HOUSING MANAGERS CERTIFICATE EXAMINATION

Maintenance and Repair of Houses

Candidates must learn to weigh the problems before attempting the answers. The logical sequence of events can then be recited.

Estate Records and Accounts

Many marks were lost by candidates "writing round" the subject of the question and missing the point.

Machinery of Government

The general standard was much lower this year, and the main failure was not only an inability to apply basic textbook knowledge to the questions, but also ignorance of these principles themselves. A descriptive knowledge of the topics in the syllabus would provide any candidate with a safe pass.

Law of Landlord and Tenant

Candidates appear to have worked hard at this subject, but do not seem to have sorted out in their own minds the knowledge they have acquired. Some answers showed a complete misconception of the subject matter of the question.

Family Income and Expenditure and Social Services (*1st paper*)

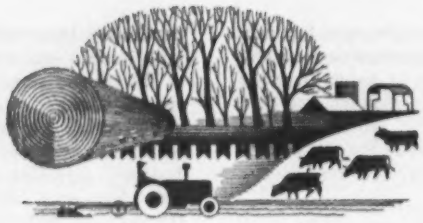
The papers would gain greatly if the students read more widely. I was pleased to note, however, that two or three candidates referred to the Younghusband and Crowther Reports. Question 8 proved a snare to some students who misread the question and lost marks accordingly.

Family Income and Expenditure and Social Services (*2nd paper*)

This paper required a knowledge of facts and was not as well done as the first paper in which the questions were more general. Factual material must be up to date and accurate. Some candidates gained low marks because they failed in all three respects.

Sanitation of Houses

Several candidates appeared to overrun reasonable time limits on easy (or well known) questions to the detriment of later questions. Bad allocation of time in an examination is a very common fault and undoubtedly causes many failures.



AGRICULTURE AND FORESTRY

Dune Reclamation at Braunton Burrows, Devon

By C. KIDSON, B.A., Ph.D., and A. P. CARR, B.Sc., F.R.G.S.

On the northern flank of the entrance to the Taw–Torridge estuary in North Devon is one of the best examples in this country (Plate 1) of a coastal dune system surviving unspoilt. Braunton Burrows has been a study area for ecologists[1,2] and physiographers for many years. Its research potential in these fields is so high that attempts to make it a nature reserve have been long continued and persistent. The dunes and the wide beach fronting them also have a considerable value for military training especially in the field of "combined operations." Concentrated use for training, particularly during the recent war, culminated in serious damage to the dune system. This paper describes efforts to rehabilitate some of the worst affected areas in order to conserve both the remaining scientific value and the military utility of the area.

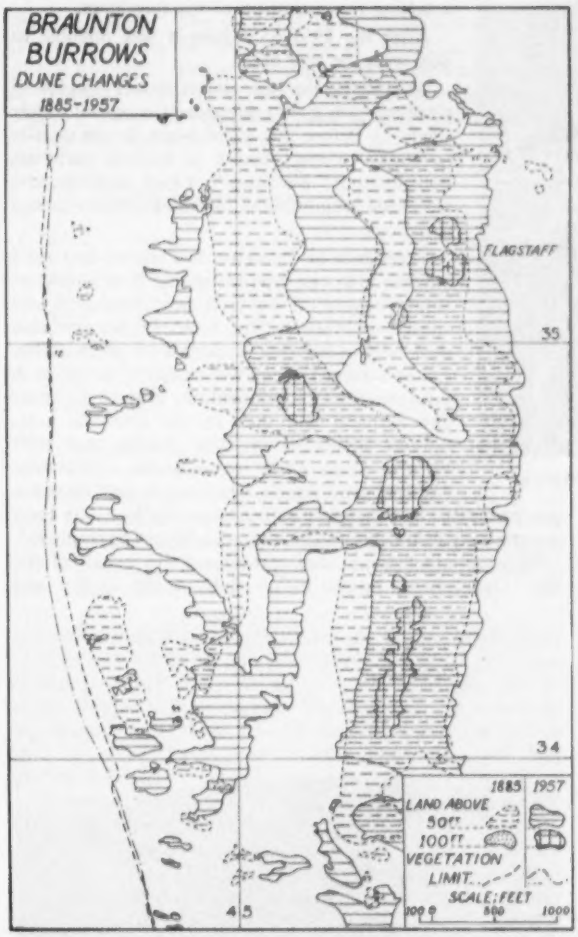
The Burrows extend from the cliffs below Saunton Down, south for some 3 miles to Airy Point and thence south-eastwards for a further mile or more to Crow Point (Fig. 2). In the central area, where the dune structure is fully developed, the Burrows consist of three ridges, separated by slacks and lying parallel to the shore and each other, within an overall width of about a mile. Under normal conditions the seaward dune ridge, usually rising to about 50 feet O.D. in height, is fronted by a more or less continuous line of foredunes rising to some 15 feet above the level of the beach. The middle and landward dune ridges are both higher, rising in places to more than 100 feet O.D. and in one area to over 125 feet O.D. They are thus among the highest dunes in the British Isles. In the north where they abut on to the high land of Saunton Down, and in the south, where the trend of the shore changes in response to the influences in the estuary, this threefold division is replaced by a more broken and less well-defined double system of ridges.

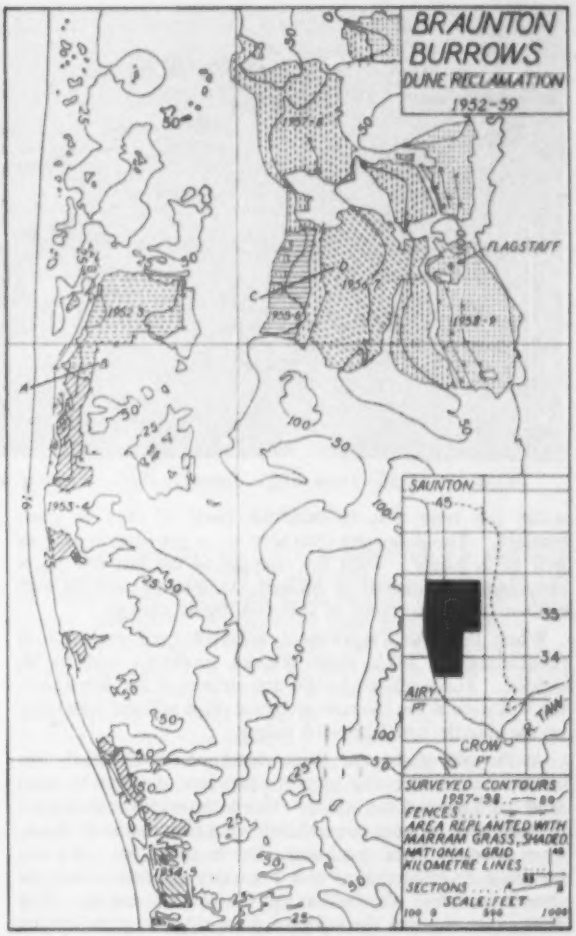
PLATE 1.—*Braunton Burrows, 1956. Taken from the vicinity of Crow Point looking north-west. Compare Plate 4.*

Sand dunes are naturally only partly stable. The blowing of sand by wind is an almost continuous process and erosion from one area with consequent deposition in another is part of the everyday dynamics of the system. At no time is the whole area of coastal dunes covered by vegetation. Bare slopes abound, vegetation dies off and is replaced. Generally the foredunes and the main dunes nearest the sea are inhabited by the pioneer plants, many of them annuals, so that changes are likely to be greater here than in other parts of the dune system. The constant replenishment of sand from the beach, together with occasional undercutting by waves in storms and during high tides, results in a condition of mobility. In the more landward dune ridges, under normal conditions, greater distance from the sea and smaller supplies of wind-blown sand allow many other plants, including grasses, mosses and shrubs to colonise and give greater stability.

Even when a dune system is allowed to develop undisturbed, problems of erosion and deposition are perennial. A quotation from the North Devon Journal of 25th December, 1857, illustrates this point well in relation to Braunton Burrows. "The (lifeboat) house which the adventurer might have seen these last years standing high and dry upon its piles, has, it is understood, by the rapid accumulation of sand in that part in consequence of the long-continued southerly winds, become so nearly buried that it became necessary to remove the structure from its present position, which has been done, and it now stands some 50 feet further seaward." And again the same journal reports on 21st October, 1888 :—"During the gale on Monday afternoon . . . at Braunton Burrows . . . acres of sand were removed and whisked about with the force of a hurricane."

Such episodes highlight the continuous changes which take place in all sand dune systems. When, however, by any means the plant cover is destroyed the normally relatively slow processes of change are immensely speeded up and





FIGURES 1 AND 2

extraordinary preventive measures are necessary to bring the dunes under control.[3] Any concentration of human pressure can have disastrous effects on dune stability. The need for remedial measures to repair damage caused by the trampling of holiday-makers can be demonstrated from as far afield as Meyendel (Netherlands)[4] and Cape Hatteras (North Carolina).[3] Particularly heavy use, such as realistic military training, including the employment of tracked vehicles and high explosives, inevitably speeds up the process of destruction. A condition of rapid change was reached in parts of Braunton Burrows after the close of the recent war. The results of a long period of lack of maintenance, the removal of wartime mine-fields in the foredunes, and the use of the area for training purposes in two wars, culminated in a deterioration of parts of the dune system which made large expenditure on replanting necessary.

Following a public inquiry in 1951, the Minister of Housing and Local Government gave his consent to the continued use of the Burrows for military training purposes. In his statement to the local authorities announcing this decision he said " The War Department will take measures to protect the dunes and to maintain the natural vegetation and will be advised in this task by the Nature Conservancy." The untimely death of the Conservancy's physiographer made it impossible for the Nature Conservancy to undertake this advisory work until the appointment, in October, 1954, of a successor. The War Department, therefore, had to proceed in the early years of replanting, without specialist advice.

In 1952 the War Department instituted a programme of planting and fencing designed to stabilise the dunes. It was completed by 1959 by which time nearly 100 acres had been planted and the major damage repaired.

The work described in this paper was all carried out in the central third of the Burrows. Heavy wartime damage occurred elsewhere, particularly in the northern portion, where it was dealt with by the payment of compensation to the owners who arranged their own remedial measures.

The cumulative effects of both the natural changes inherent in a dune system and the results of human interference are shown by the map (Fig. 1) on which the 50-foot and 100-foot contours and the seaward limit of vegetation, surveyed respectively by the Ordnance Survey in 1885 and by the Nature Conservancy in 1957 have been superimposed. This shows in the central area of the Burrows, that the two landward dune ridges have increased very considerably in height. The area above the 100-foot contour has been multiplied some 35 fold. In addition the ridges have migrated landward by up to 400 feet while the seaward edge of the vegetated

PLATE 2.—*Middle Dune Ridge, January,* 1958. *Planting in progress*

dunes has been able to maintain itself or even to push seaward. The dunes are thus seen to be growing in area as well as in height. Thus the changes of the last few years including those caused by military occupation must be seen against the background of this continuing change.

When the War Department initiated their reclamation programme in 1952, three distinct problems had to be tackled. These related to the destruction of the foredunes, the " blowouts " in the seaward dune ridge and the instability of the middle and landward ridges.

At the end of the war, mine clearance on the beach was carried out by directing high-pressure jets of water to wash sand from around the mines. This technique was employed in preference to more conventional sweeping methods which, when tried in these conditions, led to casualties. An unfortunate consequence of this necessary operation was the almost complete elimination of the low foredunes. This destruction exposed the seaward dune ridge to undercutting by the waves and to a wider range of wind conditions. This in turn accelerated the creation of " blowouts " in the seaward dune ridge and left the dunes in the rear without shelter.

The vegetation had been, in large measure, stripped from these rearward dunes, mainly as a result of wartime use, and the effects were inevitable. Over a stretch of about half-a-mile, the height of the middle ridge was considerably lowered by wind deflation. In the period 1952 to 1955 alone, over an area of some 25 acres this lowering was between 6 and 8 feet. Much of the sand produced by this erosion of the middle ridge passed through two large " blowouts " which developed in the landward ridge after the planting programme was initiated. It was piled up in free accumulation slopes on the landward side of the Burrows. These two major " blowouts," one to the north and one to the south of the flagstaff (Fig. 2) completed a broad belt of " Sahara-like " conditions extending from the sea through all the dune ridges to the land behind the dunes. This considerable area of bare sand can be seen in the middle distance in Plate I. The plan for the fixation of the dunes thus had to make provisions for the re-creation of the foredunes, the healing of " blowouts " in the seaward dunes and finally for the stabilisation of the rear areas.

In the first three years, work was concentrated on the healing of " blowouts" in the seaward dune ridge and the resulting reconstitution of the foredunes.

After the 1954–55 season it was possible to deal with the rear areas.

To stabilise the bare slopes, it was planned to plant marram grass (*Ammophila arenaria*) widely (Plate 2). Before this could begin, it was usually necessary to erect fences of various materials both to close " blowouts " at least partially, and aid in the accumulation of sand in other exposed situations.

Experience at Braunton has shown that rigid adherence to one type of fencing is unnecessary. While brushwood was used most extensively and erected as shown in Plate 3, other types were also used. Provided that a degree of permeability can be achieved which will permit a reduction in sand movement but not entirely prevent it, almost any material will do. In the foredune area, hessian supported on wire netting and with wooden fence posts was effective. Elsewhere " interweave " panels were used though these are less permeable and therefore rather less suitable. Any local materials which are cheap and easily available can be employed.

Planting and fencing were carried out, on behalf of the War Department, by the estate staff of the Tapley and

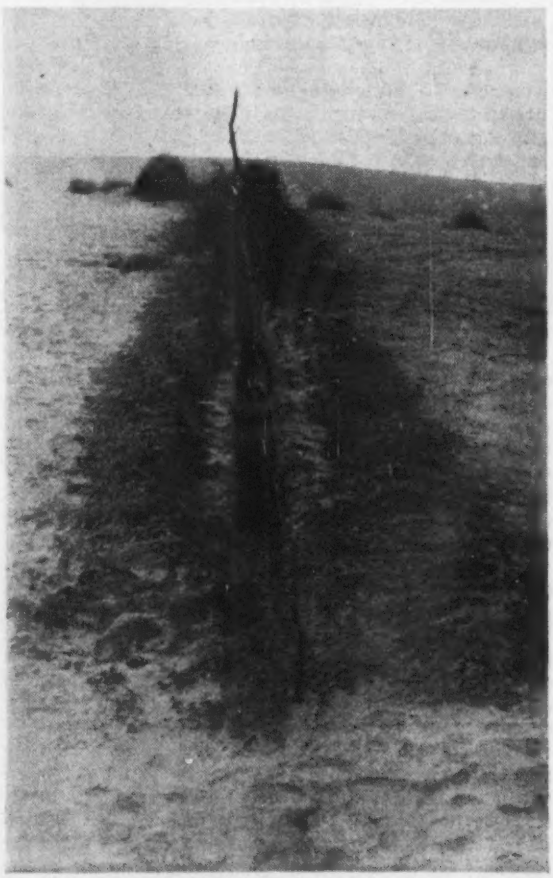


PLATE 3.—*Blowout north of flagstaff, April,* 1955. *Detail of construction of brushwood fence.*

Saunton Estate. The scale and pace of the operation was largely governed by the numbers of men available in a planting season. The team varied in size between a maximum of 12 and a minimum of four, according to circumstances. Figure 2 shows the progress of planting and fencing and this is amplified by Table I below.

TABLE 1

ACREAGES REPLANTED WITH MARRAM

Season	Acreage	Location	Method
1952–3	10·0	Seaward Ridge	Mainly block planting.
1953–4	8·6		Small isolated pockets.
1954–5	2·6		
1955–6	5·4	Middle Ridge	Block Planting.
1956–7	18·2		" "
1957–8	29·7	Landward Ridge	" "
1958–9	18·2		" "

Some limited replanting of three difficult areas was carried out at the beginning of the 1959–60 planting season.

Work in the first three seasons was concentrated in the most seaward of the three main dune ridges. Apart from one large area dealt with in 1952–3, this involved the sealing and replanting of a large number of " blowouts " each of which represented only a small pocket of planting. The visible effects were impressive but when the areas of the pockets are expressed together as an acreage figure, they convey little idea of the considerable amount of work involved. Much of the 5 miles or more of fencing used to close " blowouts " throughout the rear areas, as well as in the seaward dune ridge, was erected in this initial period so that the larger acreages of planting recorded in the later years owed much to this early groundwork.

While in a number of areas, especially in the foredunes, the early plantations were either eroded out or completely buried, this was through the vagaries of the sand supply and the inability of the planted " setts " to grow adequately until rooted. In parts of this area the plantations are now completely incorporated into the natural vegetation pattern. Comparative stability was achieved quickly. Table 2 records changes at five sites where a marker layer of dyed sand was paid down in 1 metre square plots for this purpose.

TABLE 2

Seaward Dune Ridge Changes in heights from previous record are given in centimetres — *Dyed Sand Plots* (Laid down October, 1957)

Date of Plantation	Date of Record	Plot Number 1	2	3	4	5
1952–53	January, 1958	+ 1·3	+ 0·6	+ 1·3	+ 2·5	0
	October, 1958	+ 14·7	− 3·8	− 4·5	− 3·8	− 2·5
	October, 1959	0	+ 2·5	0	0	+ 2·5

Some of the effects of stabilising the seaward ridge were not immediately apparent but they were nonetheless important. Perhaps the most significant but indirect result was the re-building of the low foredunes. An attempt was made in 1953 to re-create a continuous straight foredune by bulldozing a low mound on the beach near to the high water mark. The intention was to fix this small littoral dune by planting but before this could be carried through, high spring tides had destroyed the mound and the attempt was not repeated. The plantations in the seaward dune ridge have, however, trapped in the forward area much sand which formerly passed through the blowouts in this ridge. This has induced the natural formation of new foredunes, which, throughout the central area of the Burrows, have grown by up to 8 feet in height. The section through the foredune area (Fig. 3) shows this growth. As a consequence the high water mark of a spring tide was some 200 feet seaward in 1958 than four years earlier.

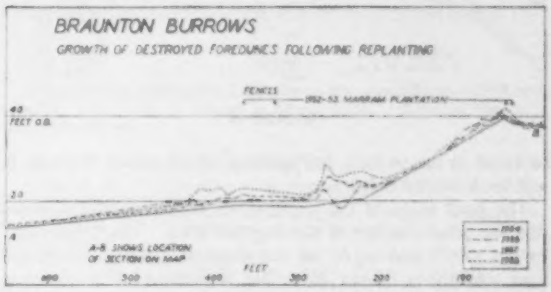


FIGURE 3

A less obvious and less easily forecast result was also most unwelcome. The sealing of blowouts in the foredunes cut off much of the sand supply which had accrued to the ridges further landward. While these were still unprotected by vegetation, this lack of sand supply resulted in an acceleration of the rate of lowering of the middle ridge by wind deflation.

From the beginning of the 1955–56 planting season to the completion of the programme in 1959, the large bare slopes in the rear areas were tackled. The middle dune ridge was dealt with first. Once the whole ridge had been covered general stability was achieved. Figure 4 is a section through this ridge. It shows something of the lowering prior to planting and the beginning of recovery after a vegetation cover had been established. Table 3 gives details of changes in surface level over the past 2 years at 21 sites throughout the plantations on this dune ridge.

TABLE 3

Central Dune Ridge — *Dyed Sand Plots* (Laid down in October, 1957)

Changes in height from previous record are given in centimetres.

Date of Plantation	Date of Record	Plot Number 1	2	3	4	5	6	7	8
1955–56	Jan., 1958	−6·4	− 8·9	− 1·9	−2·5	−1·3	− 2·5	0	0
	Oct., 1958	+5·7	+ 3·8	−11·5	+8·2	−7·6	−13·0	−2·5	−2·5
	Oct., 1959	−6·4	+10·2	0	−3·8	+1·3	+11·5	+1·3	+7·6
1956–57	Jan., 1958	0	− 1·3	− 2·5	+3·8	+3·8	0		
	Oct., 1958	+5·1	− 2·5	+ 3·8	0	−1·3	*		
	Oct., 1959	−5·1	0	0	0	+5·1	*		
1957–58	Jan., 1958	+4·4	+ 1·3	+ 5·1	−5·1	−1·3			
	Oct., 1958	*	*	*	+2·5	+5·1			
	Oct., 1959	*	*	*	−2·5	0			

* Indicates site destroyed

The table suggests that 2 or 3 years are needed after planting before surface stability is attained. The greater amount of change in the first years after planting is a testimony to the time lag involved. The figures for the 1955–1956 plantation and some of the less desirable effects

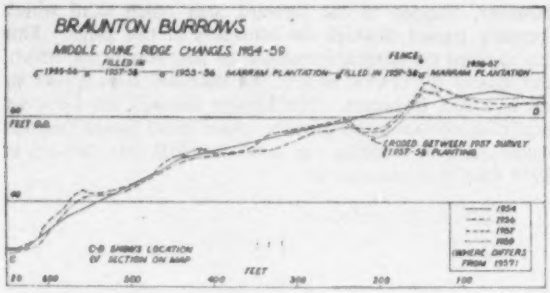


FIGURE 4

revealed in the section, in Figure. 4, which passes through it, will be discussed below.

The final stage of the reclamation of the damaged dunes was the rehabilitation of the flagstaff area. The "blowouts" to the north and south of the flagstaff already mentioned were effectively closed by triple brushwood fences begun in the spring of 1955 and renewed later after burial. These accumulated up to 12 feet of sand and in large measure restored the crest line of the dune. In the 1957–58 planting season the windward slope in front of the fence was planted and in the following season the crest and the back slopes were covered. This, apart from the minor replanting of small areas where setts failed, effectively completed the programme.

The methods used at Braunton were by no means new. Carey and Oliver[6] writing in 1918, give a detailed account of the technique and refer to experimental planting by Sorēn Biörn in 1795. More recent accounts[7, 8] show that little has been added to the procedures.

Each area does, however, have its peculiar problems and each reclamation scheme can add useful lessons for future guidance. Braunton is no exception.

The urgency of the problem here meant that little could be done to experiment with new ideas or new plants. No trials of different planting intervals or patterns or of alternative methods, such as propagation from seed or rhizome fragments, could be tried. Such experimental work, however desirable, was outside the War Department's terms of reference. As soon as fencing had produced some chance of success, and in some cases almost before this could be claimed, planting of marram setts at roughly 2 feet intervals was carried through. The success of planting under these conditions has varied from year to year. In this country, the planting season ordinarily lasts from October to April. Experience at Braunton has shown that setts transplanted very late in the season or when the moisture content of the sand has been low, have suffered from severe checks to rooting and subsequent growth. Some areas have had to be replanted a second time because these setts have failed to survive.

A feature of marram plantations, which is exemplified at Braunton Burrows, is the length of time which is required for their establishment and their integration in the normal vegetation cover of the dunes. The standard practice was followed of collecting marram grass for planting from the more stable areas at the rear of the dunes. As a consequence, less vigorous grass was used than that growing naturally near the areas to be replanted. Very large quantities of marram are needed for large-sized plantations since each sett consists of about a dozen groups of leaves pulled from growing plants, and some 10,000 or more setts are required per acre with a planting interval of 2 feet. Some at least of this marram could be obtained from tussocks existing in an otherwise bare area to be replanted. At Braunton such tussocks were not used but were left *in situ* and incorporated into the plantation. They introduced harmful inequalities into the smooth aero-dynamic shape desirable before replanting.

A common practice, and one followed at times at Braunton, is to replant in rectangular blocks irrespective of the nature and shape of the area to be covered. The planters themselves found this a convenient method but it led to a number of undesirable features which it was not always possible to correct later. Very often in the early stages, the edge of the plantation was a straight line with a gap left between the replanted areas and those where the original vegetation had survived. This was particularly unfortunate in newly planted "blowouts" where a part of the sides was left bare and available for exploitation by the wind. This fault was, however, avoided in later planting, and the plantations were dovetailed into the remaining vegetation (Plate 4).

A striking illustration of some of the harmful effects of block planting can be seen in Figure 4, the section across the middle dune ridge. In the work done in the winter of 1955–56 (Fig. 2) areas planted with marram and unplanted bare sand

PLATE 4.—*Blowout south of flagstaff, May, 1959. Replanting completed. Note brushwood fences which are just visible.*

were alternated with the intention that these bare areas should be filled in later in the season. In the event, this replanting was not carried out until the 1957–58 season. During the interval the removal of sand by wind from the bare area and the trapping of the sand by the marram of the planted blocks resulted in the production of hummocks with a maximum amplitude of 6 feet. Even although the bare areas have been planted for over 2 years the inequalities still persist.

This section across the middle dune ridge shows how these irregularities have militated against the smooth aerodynamic shape which it is the object to achieve in rehabilitation. The effect is accentuated by another feature of this planting method. A gap was left between the edge of the 1955–56 plantation and the " interweave " fence built on the crest of the ridge to increase its height preparatory to planting. This gap was exploited by the wind and subsequent planting in 1957–58 has not succeeded, nor is it likely to succeed, in eliminating the depression produced.

The dyed sand plots in this 1955–56 plantation (Table 3) and frequent levelling summarised in Figure 4, show that change is greater in this area of planting than almost anywhere else away from the foreshore. This emphasises the need for planting to follow the natural contours of the dunes and the avoidance of gaps in planting which will inevitably produce inequalities.

While both the planning and execution of the replanting of Braunton Burrows are not faultless, the degree of stabilisation achieved in the central area is impressive ; when it is remembered that there was need for immediate remedial measures on an *ad hoc* basis, and little time for experiment the success of the operation is heartening. Plate 4 shows stability in one of the worst affected parts from which blowing sand threatened to affect adjacent farming areas. The removal of fears of damage from this cause is an indication that, despite the difficult conditions, the War Department have honoured their pledge to rehabilitate the affected area of the dunes.

NOTE

Sixty-six square miles of the North Devon countryside have recently been designated as an " area of outstanding natural beauty." Braunton Burrows is included in this area.

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Improving a Hill Farm

The following is a report of the discussion which followed Professor E. J. Roberts' paper presented at the Annual Conference at Bangor, on 1st September, 1960. *The paper was published in the October issue of* The Chartered Surveyor.

INTRODUCTION

Mr. R. C. WALMSLEY (Fellow), F.L.A.S., the retiring Chairman of the Agriculture and Forestry Committee, presided at the meeting. He opened the proceedings by welcoming Professor Roberts and Mr. E. Wynn Jones of Madryn Farm, Aber.

Professor ROBERTS then introduced his paper. He said that he had been asked to make some supplemental observations about Welsh agriculture in general, and to contrast it with British agriculture as a whole.

A Government committee had recently considered the problems of Welsh agriculture. They had come to the conclusion that there were no special technical problems peculiar to Wales which were not also to be found somewhere in England. Problems in the Lake District and in Somerset were similar to those in Wales. It would be true to say, however, that there were no areas of any size in Wales wholly devoted to tillage that were comparable to areas say in Lincolnshire or Norfolk. Although North Wales (by contrast to the remainder of Britain) had been experiencing a severe drought until very recently this year, Wales as a whole in normal years had a large rainfall. Its agriculture was therefore mixed, with the emphasis on grass and livestock. Caernarvonshire was a county of contrasts ; there were some rich patches of land, for example in the Conway valley ; but on the other hand there was the poorest land of all near the peaks in Snowdonia. There were many small farms, and quarrymen had smallholdings of from five to ten acres and often the right of grazing small numbers of sheep on the mountainside. These rights were not always appreciated by the larger farms, but they were well-established.

Welsh farmers, as in the rest of Britain, had found it profitable to go in for milk production in a bigger way than formerly ; on the other hand, fewer pigs were kept than in the remainder of Britain. Possibly this was not unconnected with the fact that there were in Wales few large areas of corn production. There was considerable land-hunger in Wales, and opportunities were not available for all those who aspired to be farmers themselves ; that difficulty was offset by the various openings in the Government service connected with agriculture and not confined to a particular district.

Mr. J. G. LLOYD (Fellow), proposing the vote of thanks to Professor Roberts, said that all his colleagues acknowledged Professor Roberts as the expert on hill farm improvements. He was exceedingly well known in that capacity. He had also supervised, at College Farm, some outstanding experiments in the layout of farm buildings.

Professor Roberts had dealt thoroughly in his paper with the husbandry problems of hill farms. Practising agricultural surveyors were perhaps more directly concerned, if his own experience was any guide, with the estate management side of the problem. Professor Roberts had listed the special problems of a hill farm under eight headings. He (Mr. Lloyd) would like to mention two more. The first was the problem of the tenants themselves. Some of them were ill-equipped, both as regards finance and business ability, to tackle modern hill farming problems with a reasonable chance of success. His second problem was the standard of fixed equipment to be aimed at on these farms, and this was linked with the ability of the farmer to use it. We were living in an era of fierce competition and rising costs. From the management point of view, it was important to decide whether the policy

should be to plan the amalgamation of holdings as they became vacant in order to produce larger units. Such an arrangement might make it possible for a larger number of holdings to reach the standard to be seen at Madryn Farm, but Welsh hill farms varied a great deal and he would not wish those attending the Conference to assume that the standards achieved at Madryn Farm and College Farm were typical. Each of them were exceptionally favoured as regards the owners and the management and, in the case of Madryn, the abilities of the tenant.

He feared that there would be a steady de-population of the hills. It was true that the Ministry of Agriculture was doing all it could to help hill farming by the provision of money for improvements. These would enable people to continue to make a living in this way of life. On the other hand, the policy of the educational authorities was to transport all the children to the valley for their schooling (in some cases the children were actually boarded in the valley) ; and the more the children were attracted to life in the lowland the less likely would they be to make their lives in lonely hill farms. Nevertheless, it must be conceded that the grants for hill farming improvements were good.

Mr. Lloyd went on to speak of his interest in the experiments with shelter belts being conducted at College Farm. He thought these experiments were important as they would lead to a greater integration of ordinary agriculture and forestry on larger hill farms. Hill farmers could undertake the planting and maintenance of plantations of trees at higher levels if they had the necessary information. Such work could be included in an ordinary farm programme and would not require a great deal of supervision.

There was in his view a great need for an improvement in the general level of rents in Wales. Speaking in a similar debate at St. Andrews the previous year, Mr. Walmsley had urged Scottish landowners to increase rents. There was no doubt that rents had not kept pace with changing values, and in North Wales they were already tackling the problem of raising them where appropriate. However, in a sparsely covered district with a language problem, the profession as a whole was not yet always as aware as it should be of the modern economic partnership problems of landlord and tenant, and that these were not reflected in the rents customary a generation ago.

In conclusion, Mr. Lloyd expressed, on behalf of all the agricultural members of the North Wales Branch, a warm welcome to their colleagues from across the English border, and his great pleasure in proposing the vote of thanks to Professor Roberts for his able paper and for his most interesting supplementary remarks.

Mr. W. F. Hirst (Fellow) seconding the vote of thanks to Professor Roberts, said that he was not himself experienced in hill farming. He lived in the more level parts of Yorkshire, though not far from the Pennines. The Pennines had problems similar to those to be found in the Cambrian Mountains, though it must at once be conceded that the latter were higher !

He was particularly concerned about two points arising from Professor Roberts' paper. First, there was the question of drainage ; was it better to use the old-style soft drains as had been done in the country with which he was familiar, or to use pipe drains and, if so, of what type ? During the war, agricultural executive committees had given preference to the latter, but with a thin surface of soil there were considerable problems when it came to renewing the drains. Secondly, he would wish to associate himself with the tribute which had been paid by Professor Roberts to the various agricultural advisory committees ; he felt that the Ministry's Advisory Service was giving much help to agriculturalists and that similar help was being made available by the Universities.

Mr. G. R. Richards shared Mr. Hirst's concern about the difficulties of drainage in hill farm country ; he thought that much depended on the exact nature of the ground ; there were places where it was impossible to use soft drains.

Mr. Vaughan Richards (Fellow) asked about the money spent on the improvement of College Farm and its rental value. He was interested to observe that the farm carried a flock of six hundred and fifty ewes on the hillside or ffridd. This number seemed rather high. He was also interested in the arrangements made for wintering ewe lambs.

Mr. E. Wynn Jones, of Madryn Farm, Aber, said that there had been considerable success at Madryn Farm in recovering hillside from bracken to pasture. In the present year they had not been quite so successful as in previous years owing to the drought experienced in the early spring ; but the good results of the efforts of the two or three preceding years were becoming apparent. The debate on the paper had brought up many important points about hillside farming improvements. The most important practical question was the amount of money that one could afford to spend before one could expect returns. Professor Roberts had referred in his paper to what was called " pioneer cropping " on hill land. There were places where this was the right method to adopt but, if it had been used at Madryn Farm, he would have taken about ten years to recover the same amount of hillside pasture as he was expecting to recover, by stages, in a five-year programme.

Mr. Peter Trumper (Fellow) asked whether there was the same tendency in Wales, as in the rest of Britain, for the number of very small farms to diminish.

Mr. Mark F. Strutt (now Chairman of the Agriculture and Forestry Committee) referred to the apparent lack of forests in the hill areas of Britain. In Scandinavia there were farms which rose from near sea level almost to the tops of mountains, but much of the area was forest. Parts of it belonged to the Government and other parts to the farmer. Would not a better integration of agriculture with forestry in Wales and Scotland avoid the de-population of the hill farm country ?

Major E. S. Dobb (Fellow) referred to Mr. Lloyd's observations about rent arbitrations and to the language difficulty. It was a point on which representations had been made by the Institution and any alteration of the present position would involve a change in law. There was some food for thought, however, in the point that a decrease in the demand for hill farms might sometimes result in rent reductions under the 1958 Act.

Professor Roberts, in reply to the questions raised, said that Mr. Lloyd had referred to the difficulties of persuading good quality tenants to occupy hill farms. It was true that this was a real problem. Hill farmers were in a special class ; they had to be the kind of people who were prepared to live in remote places ; and the life of a shepherd in a hill farm area was a lonely one.

Mr. Vaughan Richards had asked about the rental value of College Farm. Professor Roberts said that land value at the time when the farm was acquired just after the war was exceedingly low. Since then a great deal had been spent on buildings and the value to-day must be very much higher

than when the farm was first acquired. He agreed that the wintering of flocks was a great problem on hill farms, and it was one which they had only been able partially to solve at College Farm.

In reply to Mr. Trumper's question about the numbers of small farms, Professor Roberts said that there had been a considerable move towards amalgamation of hill farms. It was largely a question of accessibility. The problem was not confined to Wales ; he thought the tendency there, as elsewhere, would be for very small farms to disappear and be taken over by neighbouring farmers.

In reply to Mr. Strutt, Professor Roberts said that problems of land in Wales were in conflict with the idea of greater afforestation that had already been undertaken. The taking of land from existing farms for forestry made it more difficult for the farmer to get his living in the years immediately ahead, and it was small consolation to him to be told that, in the fullness of time, large forests would be growing on the land and producing money and providing work for a later generation.

In reply to a question on fencing, Professor Roberts said that the inbyes at both farms were fenced but that on the sheep-walks further south and east of these farms there was no fencing. A fence on the hill tended to restrict the movement of sheep and their ability to look after themselves when foul weather suddenly appeared. Sheep were good weather prophets and they could better protect themselves from sudden snow drifts if their movements on the hill or mountain were not restricted by fencing. On the other hand, since the disappearance of the manorial courts, there had been no authorities with disciplinary powers to control the grazing rights. No one could stop a farmer from keeping more sheep on some commons than he should. It was true that if a Commons Bill came into force, there would be some control, but it would be ineffective for about another ten years. Meanwhile some form of fencing was the best solution despite the disadvantages which he had mentioned.

Agricultural Land Tribunals (England and Wales)

The Agriculture Act, 1958, and the *Agricultural Land Tiibunals and Notices to Quit Order*, 1959 (S.I. 1959, No. 81) which came into operation on 26th January, 1959, effected a change in the procedure laid down in the Agricultural Holdings Act, 1948, for various matters arising between landlords and tenants of agricultural holdings.

The principal functions which the 1948 Act laid upon the Minister of Agriculture were those of deciding upon applications from landlords for consent to the operation of notices to quit (section 24 (1)) ; applications from landlords for certificates of bad husbandry against tenants (section 27) and applications from tenants for consent, in lieu of the landlord's, to the carrying out of long-term improvements (section 50). The Minister delegated his powers in connection with such applications to the county agricultural executive committees and the parties had a right to appeal against committee decisions in section 24 and 27 cases.

Under the new procedure all such applications go direct to an Agricultural Land Tribunal, of which there are eight in England and one in Wales, and the Tribunal's decision is finally subject to a right of appeal to the High Court on a point of law. The Tribunals were also made responsible under section 4 of the Agriculture Act, 1958, for deciding upon a new class of application from tenants for a direction to a landlord to provide fixed equipment necessary in order to comply with statutory requirements.

In their first full year of operation under the new procedure up to and including 31st March, 1960, Agricultural Land Tribunals received a total of 570 applications of all classes. 196 were withdrawn before hearing, and decisions were given in 254 cases ; 120 applications were outstanding at 31st March, 1960. Two decisions were referred to the High Court.

The following figures offer a comparison of the outcome of cases which were decided by Tribunals between 26th January, 1959, and 31st March, 1960, with the annual average of county agricultural executive committee decisions during the three years from 1st March, 1956, to 28th February, 1959 ; committee figures are in brackets.

	Successful	Unsuccessful
Notice to Quit	100 (90)	130 (167)
Certificate of Bad Husbandry ...	7 (19)	5 (19)
Consent to long-term improvements ...	3 (24)	0 (3)
Direction to provide fixed equipment ...	5	4

Table 1 contains an analysis of applications by landlords for consent to notice to quit. Under section 25 (1) of the Agricultural Holdings Act, 1948, as amended by the Act of 1958, the Tribunal's consent to a notice to quit must be based on one or more of five grounds set out in the section, which must be specified by the landlord in his application. The grounds are briefly :—

(*a*) that the termination of the tenancy is in the interests of good husbandry ;

(*b*) that it is in the interests of sound estate management ;

(*c*) that the land is required for agricultural research or education or for small holdings or allotments ;

(*d*) that greater hardship would be caused by withholding than by giving consent ;

(*e*) that the land is wanted (in certain circumstances) for a non-agricultural use.

The Tribunal must, however, withhold their consent if in all the circumstances it appears to them that a fair and reasonable landlord would not insist on possession.

Out of a total of 230 notice to quit applications decided, 100 (43½ per cent.) were successful. 18 of these succeeded in default of a reply by the tenant. In a further 15 cases (6½ per cent.) the application would have succeeded but for the operation of the proviso that a fair and reasonable landlord would not insist on possession.

The majority of applicants relied on more than one ground. Out of 212 contested applications, 154 were based on two or more grounds and 58 on a single ground. 54 of the former were successful and 28 of the latter, but only half of the 54 succeeded on all the grounds advanced.

The most frequently quoted grounds were hardship (164 cases) sound estate management (139 cases) and good husbandry (120 cases). Sound estate management enjoyed the greatest percentage of success (35 per cent. as compared with 32 per cent. in the case of hardship and 24 per cent. in the case of good husbandry); but applications established on the ground of sound estate management also suffered the most heavily under the fair and reasonable landlord proviso.

TABLE I

ANALYSIS OF AGRICULTURAL LAND TRIBUNAL DECISIONS UNDER SECTION 25 (1) OF THE AGRICULTURAL HOLDINGS ACT, 1948, AS AMENDED BY SECTION 3 (2) OF THE AGRICULTURE ACT, 1958

Grounds for Applications	No. of Applications	Grounds on which Consent given									Refusals		
(Sub-sections of Section 25 (1))		(a)	(a) (b)	(a) (b) (d)	(a) (d)	(b)	(b) (d)	(c)	(d)	(d) (e)	Outright	Under Proviso	(Grounds) (Satisfied)
(a)	12	6									6		
(a) (b)	16	1	5			1					8	1	(b)
(a) (b) (c) (d)	1								1				
(a) (b) (d)	66	2		10	1	3	1		3		39	7	(b)
(a) (b) (d) (e)	1								1				
(a) (c) (d)	1										1		
(a) (d)	23	1			2				5		14	1	(a)
(b)	15					6					7	2	(b)
(b) (c)	1							1					
(b) (d)	38					1	7		3		24	3	(b)
(b) (d) (e)	1					1							
(c)	3							2			1		
(c) (d)	1								1				
(d)	27								14		13		
(d) (e)	5									3	2		
(e)	1											1	(e)
	212	10	5	10	3	12	8	3	28	3	115	15	
						82					130		
Consent given in default of tenants' reply ...	18					18							
	230					100							

Agriculture Announcements

COUNTRY LANDOWNERS ASSOCIATION: PRESIDENT

The name of the President of the Country Landowners Association is, of course, Lt.-Col. R. B. Verdin and not Mr. R. B. Verney as stated in the introduction to the discussion of Mr. Walmsley's paper published on page 236 of the November issue of the *The Chartered Surveyor*.

AGRICULTURE AND FORESTRY COMMITTEE

The following officers of the Agriculture and Forestry Committee have been elected for the Session 1960–61 :—

Chairman.—Mr. Mark Strutt.

Vice-Chairman.—Col. John Clark.

Honorary Secretary.—Mr. Peter Trumper.

STATUTORY INSTRUMENTS

The Agriculture (Areas for Agricultural Land Tribunals) (Amendment) Order, 1960 (S.I. 1960, No. 1885, 3*d.* net) amends the Agriculture (Areas for Agricultural Land Tribunals) Order, 1960, by combining the Yorkshire and Lancashire Areas, with the exception of the North Riding of Yorkshire which will be transferred to the Northern Area.

FARM WAGES INCREASED

The Agricultural Wages Board has made orders increasing the wages of 500,000 farmworkers from 2nd January, 1961. Men over 20 will receive an increase of 9*s.* (making a total of £8 9*s.* a week) and adult women an increase of 7*s.* (making a total of £6 8*s.* 6*d.*)

VALUATION · HOUSING · PLANNING

The Changing Pattern of Living

At the estate management general meeting held at the Institution on 10th October, 1960, Mr. A. L. Strachan, B.Sc. (Fellow), read a paper entitled "The Changing Pattern of Living." The paper was published in the November issue of The Chartered Surveyor *and a brief summary of the ensuing discussion is published below.*

Sir WILLIAM HOLFORD (President of the Royal Institute of British Architects) said that the changes of the last five years had been marked. There had been differences not only in the pattern of living but in the kind of attractions that had been offered to people. Many of the new houses had been the product of much considered thought by teams who had been building them in the new towns, in London and elsewhere.

What struck him most was that in recent years the public authorities had produced the tailor-made rather than the ready-made article of the pre-war builder. Even now the builder was too apt to produce the same article in unconsidered succession. It was most valuable and necessary to have small houses available for buying but the builder did not seem to devote the extra time required to combine houses and flats effectively in the way that the public authority, with its more comprehensive teams and areas of land to work on, seemed able to do. The houses had been matured a little by time and had benefitted from the development of gardens planted by the occupants and by the corporations. He felt certain that Britain had made good the claim that its recent housing was among the best in the world, and he was surprised at how little was known about the more successful examples of housing in the new towns. To some extent this might be owing to the fact that it did not present itself to main roads, but was often in self-contained groups folded as much as possible into the landscape.

Mr. R. F. HOLMAN (Professional Associate) said he had been impressed by the three-storey houses at Basildon. He had imagined that the density of development would be on the low side, but from the information given the three-storey houses represented about 100 persons to the acre. Presumably, in the rebuilding of the older town centres, for instance, in Greater London, the density could be even higher, provided there were full community facilities as well.

Sir PARKER MORRIS (Chairman of the Housing Standards Sub-Committee of the Central Housing Advisory Committee) said that he had been most impressed by the work of the new towns. It was a pity that the results were not better known.

He was very interested in the attempt to segregate the pedestrian from the vehicular traffic. When visiting a new town recently he had gained the impression that such an attempt might make units rather compressed and somewhat crowded. The area taken up by back access routes to garages in that case seemed larger than necessary.

Miss A. E. CLAY (President of the Society of Housing Managers) said she felt some anxiety about the degree of privacy provided in the new towns, not only between neighbours—which was partly a management problem—but also within the houses, where space was becoming less though people were tending to need more and more. Tenants had cars and their children had autocycles, tape-recorders, record-players and tricycles. Increased prosperity led to more possessions and a wider range of activity.

More people were having higher education, and thus more room was needed for studying. She wondered whether, in the older areas, the disused cinemas might one day be turned into reading rooms. The more communal services one had, whether for the provision of activities or for labour-saving purposes, the more numerous were the problems that management had to meet. Houses with more complicated plumbing, central heating and electrical services demanded higher technical skills from the maintenance point of view.

Her suggestion in the matter of shopping was perhaps tied up with the question of access. Delivery service would surely increase and what was needed was a kind of hatch-lift to enable deliveries to be made in the absence of the occupant. The lift could go down so as to lock away one delivery and present an open shelf for the next.

Mr. A. L. STRACHAN, in reply to questions raised during the discussion, said that he was very glad that the publicity aspect had been raised. He had himself endeavoured to stress it during the 10 years of his association with the new towns. He had been consistently impressed by the interest shown by people from abroad. It was surprising that something which had been done in this country, but not in quite the same way anywhere else, should have received so little publicity. People, of course, seemed to know the names of the new towns, but the achievements had been considerable and should be better known.

If residential density were to be increased—as no doubt it would—the problem of overcoming noise would have to be resolved. There was a considerable amount that could and should be done in regard to soundproofing generally.

He had not intended to imply that the neighbourhood

shopping centre would go, but that shopping should be provided nearer places of work. His own corporation was building a small range of shops at industrial areas because the woman who worked, even though she might have to carry her shopping further, appreciated the opportunity to make her purchases during the lunch-hour or after work, before the shops closed.

He agreed that tarmac roads were preferable to concrete roads. Some of the new towns, for instance Bracknell, had tarmac roads.

In regard to the sale of houses to occupiers, people who had gone into the new towns had not normally wished to buy. They were financially better off as tenants. However, a substantial number of people did buy houses in new towns. These had been built specifically for selling, and not for rental.

Most new towns, depending upon the availability of accommodation, took a certain number of old people into their houses. Usually preference was given to the parents of existing tenants. This made for a certain stability. The number of old people catered for was not great, however, and could not be in the early stages of the new town's development because the primary purpose was to house people from the London area who had come out to work in the industry and commerce of the town.

The practice concerning old people varied between towns. Basildon did not specifically build houses for old people. Sometimes the ground and first floors of multi-storey developments were used for old people. In effect, one-bedroom flats were used to accommodate them, but this did not apply in all new towns. Some were going ahead with schemes for bungalow and other developments with this specific end in view. Obviously, if the town was to be balanced it must have a certain amount of accommodation for the old.

In the rear access housing in Basildon the density was 18 to 22 persons to the acre. The earlier type had had a lower density. The density had been increased as the development approached the town centre—simple because it had worked out that way as the town had been begun on the outskirts. Not only had there been a feeling that densities had to be greater, but it had coincided with a desire to provide a greater urban sense as the centre of the town was approached.

He had been asked how much of the town had been developed on those lines. The answer was, probably not more than 20 per cent. at the moment. If one took the number of persons per house as 3½, this meant 77 to the acre. The density could probably be increased by including a greater proportion of flats.

He did not think that the density of the two-storey housing could be increased : the gardens ought not to become any smaller. A greater proportion of flats and three-storey development might be effective.

It had been suggested that the increasing density tended to give a feeling of crowding. The tendency was to decrease the size of the gardens, but greater privacy had resulted at the back. On the other hand, there were more houses, and children's playgrounds were a problem. He emphasised that an increase of residential density should be accompanied by much more attention to children's playgrounds than in the past.

He agreed that there was no reason why one should not have parking space instead of garages. As more and more people owned cars and changed them, in the American fashion, more frequently it would matter less and less whether they were left outside. Many people still bought second-hand cars and were able to keep them going well over a long period only by cossetting them and using all their mechanical knowledge. Such cars, if left outside, would deteriorate rather quickly. However, the pattern was bound to change. In some of the developments at Basildon 100 per cent. provision for garages had been made. They had not actually been built.

He agreed with Miss Clay about lack of space, but increased density did not necessarily imply a decrease in the size of the house. The houses had been built to the Ministry's standards and had been no smaller than the houses which had previously been built to higher densities. Space was all-important and probably the answer was greater flexibility inside the house, according to the differing requirements of the family. Study and television were two aspects that he had emphasised.

As he had said earlier, soundproofing was very important if people were to live closer together. As a housing manager he frequently received complaints that someone could not get to sleep because the baby next door had been crying all night. What they expected him to do about it he was not sure!

Mr. K. MARR-JOHNSON (Fellow), in moving a vote of thanks to the author, said that he had delivered an extraordinarily interesting paper.

Generally speaking, people did not seem able to connect cause and effect. There was at present a great fuss over the high price of land. They did not realise that this resulted from the fact that so many people wanted to work in the same place at the same time. If there were better places in which to work, why not go there? One could then have a house, a garden if required and a garage. This was rarely possible in the town.

A great many people wished, for instance, to come into London. Some needed to work in it, others did not. It was, in reality, a great international centre and he hoped that it would become an even greater one. But inevitably that would lead to higher prices still, and a continuation of complaints, coupled with requests for remission of Schedule A rebates and other outgoings. This was in effect asking for hidden subsidies to enble them to live in a place in which they could not really afford to live. What they should do was to go to live in a new town.

It had been said that the community at large did not know that the new towns were there. Something should certainly be done about it, and Mr. Strachan had made a very good beginning in his paper.

Mr. L. TREVOR DONALDSON (Fellow), in seconding the vote of thanks, said that he wished to offer three bouquets. The first was to the General Practice Committee for thinking of the subject of their meeting. It seemed that the author had been the individual concerned, so the bouquet must really go to him. The second had been for the choice of speaker, but here too the author had unintentionally played the major role. The third was intended for the author if he were " any good," so Mr. Strachan had earned himself a real jackpot of bouquets.

He would add a fourth for the audience, which had asked all the brilliant questions that he had intended to ask himself. Everyone would join him in thanking the author for a wonderful paper.

Rating Surveyor's Diary

COURT OF APPEAL DECISIONS

AGRICULTURAL DERATING

Litter Testing Station Held Rateable

National Pig Progeny Testing Board v. *Greenall* (*VO*).

The Court of Appeal (the Master of the Rolls, Lord Justice Harman and Lord Justice Donovan) in a reserved judgment, allowed this appeal by a valuation officer from a decision of the Lands Tribunal (Mr. Erskine Simes, Q.C.), given on 26th October, 1959, allowing an appeal by the National Pig Progeny Testing Board from a decision of the West Riding of Yorkshire (North) Local Valuation Court, confirming the assessment of a hereditament described as a "litter testing station," Station Road, Hambleton, at £3,300, G.V.

Lord Justice Harman, giving the judgment of the Court, said that the National Pig Progeny Testing Board was a company carrying on a business of education, research, and experiment intended to improve the production of pigs, and in particular to carry on the progeny testing of pigs at testing stations. Each of the board's four or five stations carried out the same carefully laid down programme. Four hundred young pigs were acquired and reared under the same controlled conditions, and for this purpose a £100,000 building was required for each station.

The tests so far carried out had been wholly within doors, and only a very small area of land surrounding the buildings was required. At the site in question the surrounding land occupied nearly seven acres of the whole site of nine acres taken over by the board in 1957. It was then described as "a wilderness of weeds covered with builders' rubble." During the winter of 1957 this area was twice ploughed and harrowed, but its further use was undecided ; the alternative proposals were apparently either to grow corn with the object of using the straw for bedding in the buildings and selling off the grain, or laying the area down to grass and conducting upon it additional tests on pigs kept out of doors.

Under section 67 of the Local Government Act, 1929, agricultural land or agricultural buildings were entitled to exemption from rates, and to identify these one had to turn to section 2 of the Rating and Valuation (Apportionment) Act, 1928. It was clear that in this section agricultural land was distinct from agricultural buildings.

The only words appropriate to the former were "land used as arable meadow or pasture ground only." The Court agreed with the Lands Tribunal that this land passed that test ; the land had been ploughed and harrowed, and the fact that at the moment of the proposal the owners had not decided to which of the two alternatively intended uses it should be put did not seem fatal.

The Two Tests

For buildings to be treated as agricultural buildings they must pass two tests : first, they must be "occupied together with agricultural land" ; and, secondly, they must be "used solely in connection with agricultural operations thereon." It was conceded that these buildings were occupied together with the land which the Court had held to be agricultural land ; they therefore passed the first test.

The use to which the buildings were put was the raising of pigs, and, although the object was not to make a profit but to collect statistical information, nevertheless it was clear that this was an agricultural operation. The crucial point was whether this use was connected solely with agricultural operations on the land.

In the judgment of the Court, the board's case broke down at this point. The use of the buildings in March, 1958, appeared to have no connection at all with any agricultural operations on the land. These operations had not got beyond the stage of ploughing, and it was quite uncertain what the future might bring. It was argued that if it were decided to grow corn the straw produced would provide the necessary connection, while if grass were laid down the future experiments in open-air pig rearing would do the like. This could be left to be argued when it happened. The intention found to exist in March, 1958, to use the land for one of these purposes was not the same thing as its use.

Mr. Blundell, Q.C., for the ratepayers, would have had the Court believe that "thereon" in the phrase "agricultural operations thereon" referred to the holding ; but the Court of Appeal in *Thompson* v. *Milk Marketing Board* ([1952] 2 Q.B. 817) and in *Perrins* v. *Draper* ([1953] 1 W.L.R. 1178) held that "thereon" meant "on the land." In the view of the Court, the buildings in the case before them had no connection with the use of the land, and the appeal must therefore be allowed.

PERSONAL APPEARANCES

Small Orchard Not Rateable

Drury-Heath v. *Wallace* (*VO*).

Their Lordships also allowed this appeal by Mr. Ingram Frederick Drury-Heath, who appeared in person, from a decision of the Lands Tribunal (John Watson, Esq.) given on 25th November, 1959, and reduced by £3, the assessment of £54 on his dwelling house, garage, and land adjoining determined by the East Kent and Canterbury Local Valuation Court.

The Master of the Rolls, giving judgment, said that this was an unusual case. Mr. Drury-Heath's house happened to be the last house of a terrace, but it was clear that it had not always been intended to be the last house, for beside it was a strip of land, unbuilt on but for Mr. Drury-Heath's garage, the same size as the site of a house in the terrace. Mr. Drury-Heath, who was a surveyor, had for a long time been in occupation both of his own house and of the strip of land (although the titles were not identical) but there was no direct access from the house to the strip of land.

What he claimed was that the strip of land, which was planted with fruit trees but was only one twenty-fifth of an acre in extent, was an orchard, and hence was "agricultural land" within the meaning of section 2 (2) of the Rating Act of 1928, which said : "'Agricultural land' means any land used as . . . orchards . . . but does not include land occupied together with a house as a park [or] gardens. . . ." His Lordship assumed that if in this case the land could be described as a "garden" it would not qualify as agricultural land, and that was the question to be decided.

The Lands Tribunal had decided that the land could not qualify as agricultural land because it was not being cultivated on a commercial basis, but Mr. Phillips, for the valuation officer, had conceded that this was not a well-founded reason. He submitted that this land was too small to be described as an orchard, but that in any case it was a garden as well. His Lordship was not going to decide whether a piece of land could be both, but would ask the question, what would a person looking at the land say ? : "This is a garden," or "This is an orchard." His Lordship thought that in the special circumstances of this case they would say it was an

orchard, albeit a very small one. Lord Justice Harman agreed and emphasized that this was a special case: Lord Justice Donovan also emphasized that this decision did not mean that any orchard attached to a house was agricultural land.

Capital Cost Basis a Fallacy

Munday v. *Mason* (*VO*).

Their Lordships dismissed this appeal by Mr. L. H. Munday from a decision of the Lands Tribunal (R. C. G. Fennell, Esq.) given on 17th September, 1959, affirming a decision of the Surrey (Mid-Eastern Area) Local Valuation Court, assessing the gross value of the appellant's dwelling-house in Mitcham at £54.

Mr. Munday, who also appeared in person, was a valuation officer for Mitcham from 1928 to 1947. He submitted that in the case of an owner-occupied house, for which there was no direct rental evidence because there was no letting, the correct method of arriving at the annual value was to determine what would be needed for the owner-occupier to cover reasonable interest on his capital outlay, taking also into account the average cost of repairs.

The Master of the Rolls, giving judgment, said that it was clear from the case stated that the valuation court and the Lands Tribunal had taken as a reliable guide figures relating to other houses in the vicinity which had been let. Mr. Munday said that he bought his house in 1935 for the net sum of £810, and there had never been a letting. He now claimed that the proper way to determine the value of such a house was by way of calculations based on the capital cost of the house, and bearing in mind the low interest rates of the day he said that the correct assessment on the basis of 3½ per cent. interest would be £38.

In his Lordship's judgment the answer was to be found in section 2 (2) of the Valuation for Rating Act, 1953, which said that the gross value should be the amount equal to the rent " at which the hereditament in question might reasonably have been expected on or about 30th June, 1939, to let from year to year. . . ." So one was directed to answer the question at what rent a house would be expected to let, and his Lordship would have thought that if there were other houses in the vicinity which were being let, that would be the best evidence. Such a method also made for uniformity. Unless it could be shown that the comparison with other houses was not fair—and Mr. Munday did not claim that—the basis on which the valuation had been made was a correct one, and the appeal must be dismissed.

Lord Justice Harman concurred: Mr. Munday made a good bargain over his house, but that was not the basis on which its valuation is to be assessed. It would have been entirely wrong for the valuation officer to look at the capital cost when there were comparable houses in the vicinity. A valuation based on capital cost was a fallacy, as the Act itself showed. Lord Justice Donovan agreed and added that so far from the Lands Tribunal being in error, it would have been wrong for them to have adopted the method put forward by Mr. Munday, because the capital cost would not have been the best evidence.

FISHING RIGHTS RATEABLE

Finding of Fact by Tribunal

Govett's Executors v. *Wand* (*VO*).

Their Lordships dismissed this appeal by the Executors of Mr. John Romaine Govett from a decision of the Lands Tribunal upholding an assessment by a Hampshire Local Valuation Court, at £30 R.V. of a hereditament described as " land covered by water, and fishing " at Bransbury Common, Barton Stacey, Hants.

Lord Evershed, M.R., said that a fence, which was continuous save at the south-western extremity, was erected to improve the pasturage of the common. It was clear that the right of fishing had been enjoyed by various persons over a long period although the executors did not exercise those rights to a great extent. The real question was whether the Valuation Court and the Tribunal were justified in finding that, whatever might have been the prime object in putting up fences, the area within the fences and the banks was then being preserved mainly for the purposes of fishing.

Mr. Lyell, Q.C., for the ratepayers, sought to say that the Tribunal's finding, that the strips were still pasture or meadowland only, excluded the later conclusion that whatever might have been the object in the first place the strips were now being kept or preserved mainly for fishing. Lord Evershed said that the two things were not mutually exclusive.

In the light of the facts and what he had read, the Master of the Rolls found it impossible to say there was no evidence on which the Valuation Court and the Tribunal could hold that the strips fenced off were kept and maintained mainly for fishing. It was essentially a matter of fact, and there being no ground for saying the finding was not based on proper material, the appeal must be dismissed, with costs.

Harman and Donovan, L.JJ., agreed.

RECENT LANDS TRIBUNAL DECISIONS

UNIT OF ASSESSMENT

Council House Tenants and Their Own Garages

Bedwellty Urban District Council v. *Fardo* (*VO*).

(Cardiff, 26th July, London, 21st September, 1960.) (53 R. & I.T. p. 654 (27th October, 1960.))

Occupation—A single occupation—Council house and garage—Garage erected by tenant—Agreement with Council.

Under agreements with the landlord council and in consideration of the payment of a rent of 5*s.* per annum in respect of the plot in the garden taken for the purpose, tenants of council houses were permitted at their own expense to erect garages in the gardens of the houses, with power to remove them on the termination of the tenancies. The garages were of wooden framework with asbestos sheeting (three cases) or corrugated iron cladding (one case) erected inside the garden fence, and vehicular access in three cases was over adjoining land or a rear track for which £1 per annum was paid. The council paid the rates on the hereditament.

Held: Each house, garden and garage constituted a single rateable hereditament, since the whole was in one occupation in a single curtilage, the use of the garage to garage the tenant's car not being an exceptional circumstance requiring special treatment, and the erection of the garage by the tenant and the council's payment of rates being irrelevant matters.

Heath v. *Mitcalfe* and *Gilbert* v. *S. Hickinbottom and Sons, Limited*, applied.

House and Garage Converted into Two Flats: Separate Assessments

Heath v. *Evans* (*VO*).

(London, 14th July, 1960.) (53 R. & I.T. p. 527 (25th August, 1960.))

Ground- and first-floor flats, each assessed at £49 G.V., £39 R.V., on appeal by Surrey (Mid-Eastern Area) Local Valuation Court: originally a detached house assessed together with a garage at £83 G.V., £66 R.V. The ratepayer had demolished the garage and converted the house into two flats. There was an internal staircase leading to the upper flat, the approach to which was through a common hall.

The conversion had taken place in the summer of 1958 and subsequently both flats had been let furnished at £150 a year inclusive of rates. The ratepayer's case was that the house should be assessed as a single hereditament and his argument was based on the fact that the flats were not self-contained and that access to the upper flat could be gained only through the lower one. He cited as an authority *Allchurch* v. *Hendon Union* [1891] 2 Q.B. 436, which likewise related to a nine-roomed house which had been converted into two flats and where there was an internal staircase in common. It was held that, although the house was not structurally severed, each tenant had a separate occupation and was separately rateable. The decision appeared to be against the ratepayer, not for him. He also contended that the valuation officer should have exercised the power given to him by section 57 of the Local Government Act, 1948, to assess the house as a whole. The principle to be applied, when assessing a house let in parts, was approved by Lord Russell of Killowen in *Westminster Council* v. *Southern Railway Company* [1936] A.C. 511. " The general principle applicable to the cases where persons occupy parts of a larger hereditament seems to be that if the owner of the hereditament (being also in occupation by himself or his servants) retains to himself general control over the occupied parts, the owner will be treated as being in rateable occupation ; if he retains to himself no control, the occupiers of the various parts will be treated as in rateable occupation of those parts."

Section 57 of the Local Government Act, 1948, provides that where a building is occupied in parts the valuation officer may " having regard to all the circumstances of the case, including the extent, if any, to which the parts separately occupied have been severed by structural alterations," treat the building or any portion thereof as a single hereditament in the occupation of the person who receives the rents payable for the parts. Asked by the tribunal in what circumstances he would consider it proper to exercise his discretion under this section, the valuation officer replied that he would do so only in relation to tenement houses where the tenancies—and in some cases the units of accommodation —were subject to frequent change. In the present case the ratepayer did not live in the house and went there infrequently ; he had not retained a general control over the occupied parts within the principle which Lord Russell approved. Therefore, *prima facie*, it was correctly assessed as two separate hereditaments. The provisions of section 57 are merely permissive and the Tribunal was satisfied that the valuation officer, in refusing to exercise his discretion to assess it as a single hereditament, exercised that discretion properly. The appeal was dismissed.

Rebus Sic Stantibus

Significance of Petrol Rationing in Negotiations for Hypothetical Tenancy of a Petrol Filling Station

Baird v. *Wand* (*VO*).

(Winchester, 1st July, London, 18th July, 1960.) (53 R. & I.T. p. 653 (27th October, 1960.))

Annual value—Rebus sic stantibus—Surrounding circumstances affecting hereditament—Petrol-filling station—Suez crisis—Petrol rationing—Anticipated duration—Effect on value.

Following military operations in Suez in 1956, the Government ordered a reduction of 10 per cent. in supplies of petrol to dealers on 7th November, 1956, and on 29th November it announced that petrol rationing would start on 17th December. On 30th November, the American Government announced a plan to ease the oil shortage. On 4th December there was a temporary emergency increase of 1*s.* per gallon in petrol duty and in that month the petrol companies increased prices of petrol by 5*d.* per gallon of which 1½*d.* was passed on to dealers. The same month a further cut of 10 per cent. in supplies was announced. Petrol rationing continued till May, 1957. On 22nd December, 1956, the last British and French troops evacuated Egypt and at the end of the month plans were announced for the clearance of the Suez Canal. On 24th January, 1957, the occupier of a garage and petrol-filling station on a main road made a proposal for the alteration of the valuation list in respect of his assessment of £480 G.V., £397 N.A.V., recently confirmed on appeal by the Lands Tribunal, on the ground of greatly reduced business in consequence of " petrol rationing and for the period of emergency and the rental value of the premises are lowered in consequence."

The Tribunal did not agree with the valuation officer that in negotiations between landlord and tenant the question of rationing should be ignored ; but the events and happenings pointed to a short period of rationing rather than a long one, and the Tribunal did not see how the tenant could reasonably hope to persuade a landlord to reduce a rent recently settled for a tenancy from year to year.

Rental Evidence

R.C.A. v. " Carpet Area " in Dwelling-house Comparisons

Ellis v. *Taylor* (*VO*).

(London, 4th July, 1960.) (53 R. & I.T. p. 549 (8th September, 1960).)

Evidence of value (1) *Methods of valuation—Contractor's test—Dwelling-house—Comparative prices of houses compared* — (2) *Comparisons — Dwelling-houses — Large and small houses*—(3) *Factors affecting value—Size — Dwelling-house* — (4) *Devaluation — Dwelling-houses—Large house—Straight price per square foot—Different prices for different rooms.*

Capital values and selling prices of dwelling-houses are as irrelevant for the purpose of comparisons between different houses as they are as a basis of valuation, since the mind of the owner-occupier is affected by factors such as the cost of repairs which would not affect the hypothetical tenant, knowing that repairs are the landlord's responsibility.

Devaluation of the assessments of dwelling-houses at a straight price per square foot of reduced covered area after deduction of the values of ancillary accommodation such as second floor, basement (nil), garage and greenhouse, was held to reflect a more accurate comparison than different prices per square foot of carpet area for different rooms in the valuation of a large house (3,750 square feet R.C.A.).

A dwelling-house of 3,750 square feet R.C.A. was held not comparable with dwelling-houses of 3,000 square feet and less.

Higher prices per square foot of reduced covered area with reducing areas are to be expected in the valuation of dwelling-houses.

An end deduction of 15 per cent. for size was accepted by the Lands Tribunal in the valuation of a dwelling-house of 3,750 square feet R.C.A.

Peche v. *Wilkins* applied.

Validity of Sports Ground Rent

New Sarum City Council v. *Bowles* (*VO*).

(London, 19th July, 1960.) (53 R. & I.T. p. 639 (20th

October, 1960.))

Evidence of value—Rents—Reliability—Rent of sports ground to electricity board.

Valid evidence of the value of a sports ground is afforded by the rent at which it is let to an area electricity board which has subsequently tried to release it at the same figure, especially where a commercial firm was in the market for it at the same time.

Application of the "Bell Property" Decision : Adjustments to Rents of Flats

Peachey Property Corporation, Limited, Whaley and Hampstead Metropolitan Borough Council v. *Green (VO).*

(London, 5th, 6th July, and 21st September, 1960.) (53 R. & I.T. p. 656 (27th October, 1960).)

Evidence of value—Rents—Adjustment—Deductions—Flats in the Metropolis—Enactment of statutory deduction for repairs—Effect—Addition for tenant's liability for internal repairs—Items deductible where cost incurred—Advertising and inducements to tenants—Necessary in 1939 *not in* 1957*—Repair of common parts—Depreciation of installations—Unproductive expenditure on services (loss from voids)—Profit on services—Interest on cost of installations—Valuation for Rating Act,* 1953, *section* 2 (4) (6).

A flat comprising living-room, bedroom, kitchen, bathroom and hall in a block of 123 flats in Hampstead erected in 1938 (total rents £16,190) was assessed at £60 G.V., £44 R.V. The flat was let in 1939 at £110 rent, including local and water rates and services provided by the landlords, the landlords being responsible also for insurance and structural repairs and the tenant for internal repairs. On an appeal arising out of a proposal by the landlords to reduce the assessment to £44 G.V., £33 R.V.:—

Held : The assessment should be reduced to £53 G.V., £38 R.V., because :—

(1) Notwithstanding the enactment of a fixed deduction from gross value to rateable value in respect of flats in the Metropolis by the Rating and Valuation (Miscellaneous Provisions) Act, 1955, schedule 2, that deduction only quantified the allowance to be made from gross value in respect of repairs, insurance and other expenses necessary to maintain the hereditament in a state to command the rent and the decision of the Court of Appeal in *Bell Property Trust, Limited,* v. *Hampstead Assessment Committee* in respect of the allowance of deductions from rent to make it conform to the definition of gross value still applied.

(2) The rent should be increased by 4 per cent. in respect of the tenant's liability for repairs, having regard to its inclusion of landlord's services, the normal 5 per cent. applying where there were no such services.

(3) The rent should be adjusted by making deductions therefrom in respect of the costs of services provided by the landlords to the hereditament but no more.

(4) Deductions should be made in respect of the following items :

(*a*) advertising and inducements offered to tenants in 1939, when the letting of flats was difficult, notwithstanding the absence of any difficulty of letting in 1957 (the relevant date) when advertising and inducements were unnecessary, for there was no evidence that the inducements were only necessary in the locality in 1939, and section 2 (3) of the Valuation for Rating Act, 1953, did not require a general difference in amenities since 1939 to be taken into account as distinguished from a difference peculiar to the locality (3 per cent. deducted) ;

(*b*) the cost of the repair and maintenance of the common parts of the block of flats (as specifically allowed in *Bell Property Trust Limited* v. *Hampstead Assessment Committee* (£3,750)) ;

(*c*) depreciation on installations (boilers, water-softening plant, boiler house, staff rooms, etc., lifts, baggage rooms, wireless installations and refrigerators) as being an item of cost in respect of wasting assets ultimately requiring replacement (£763) ; and

(*d*) unproductive expenditure on services, being the difference between the total cost recoverable from tenants and the amounts actually received owing to voids (reluctantly following *Bell Property Trust Limited* v. *Hampstead Assessment Committee,* where the point was not argued in the Court of Appeal) (£310).

but not in respect of :—

(i) profit on annual payment for services, being the difference between the cost of supplying them to one flat and an apportioned part of the cost of supplying them to the block, since this was not a cost incurred and would in any case be a profit deduction which was contrary to section 6 of the Valuation for Rating Act, 1953 (£230) ; or

(ii) interest on the cost of installations, representing the income lost to the landlord by sinking his capital in providing them, since the amenities provided were part of the rateable premises and secured a higher rent for the landlords which was the return on his capital (£783).

EXEMPTION OF VOLUNTARY SCHOOLS

Temporary Use as "School Premises"

Hinckley Urban District Council v. *Leicestershire County Council and Bellamy (VO).*

(London, 7th July, 3rd August, 1960.) (53 R. & I.T. p. 595 (29th September, 1960).)

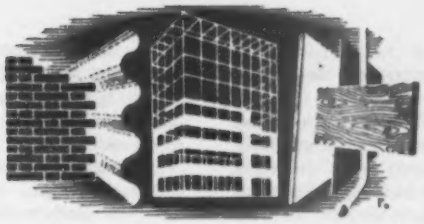
Exemptions—Voluntary school—Premises—County primary school used as overflow of voluntary school—Education Act, 1944, *section* 64.

In pursuance of the county development plan, Leicestershire County Council built a new county primary school in Earl Shilton, which they allowed a nearby voluntary school to occupy as an overflow to meet the effects of the "birthrate bulge" (pupils using the old school playing fields and school hall) under a temporary informal arrangement not in writing. They did not appropriate the primary school for the purposes of a voluntary school or convey the ownership of it to the trustees of the voluntary school, and they repaired and maintained it.

Held : The county primary school, while so occupied, was exempt from rating as part of the premises of the voluntary school under section 64 of the Education Act, 1944, because it took the overflow of that school and was neither an enlargement of it nor a new voluntary school the subject of statutory requirements under the Education Act, 1944, and the Education Act, 1946 (which had not been complied with).

RATING DIPLOMA HOLDERS SECTION

The Annual Luncheon of the Rating Diploma Holders Section will be held at the Criterion Restaurant, Piccadilly, London, W.1, on Friday, 9th December, 1960, at 12.30 for 1 p.m. The luncheon will be followed by the Annual General Meeting of the section which will be held at the Institution.



BUILDING AND QUANTITY SURVEYING

Future Practice and Procedure in Quantity Surveying

By K. K. DALE (Fellow)

The following paper was presented at a quantity surveyors general meeting held on 19th October, 1960.

INTRODUCTION

Crystal-gazing is an occupation for which I have no academic qualifications whatsoever. There seem, however, no valid reasons why quantity surveyors, accustomed as they are to intelligent guesswork, should not try to envisage their own future with at least some chance of being correct.

Let it be said first and foremost that there is a future for quantity surveying. So long as building continues, quantity surveying, in some form or other, will be practised. Consideration of past developments and present trends may provide a clue as to possible future evolution.

At the Chartered Quantity Surveyors Triennial Conference in 1952, in the course of a talk entitled " Quantity Surveying—the broadening horizon," I expressed the opinion that there was no reason why the quantity surveyor should not become in time the king-pin of the building industry. Subsequent developments have done nothing to make me revise that opinion. Whether or not such an event would of necessity be a good thing I am not prepared to say.

It has become commonplace in recent years to speak of the " Building Team," consisting of architect, builder and quantity surveyor. Concerning the last, I quote what I consider to be a significant passage from a brilliant paper entitled " Looking Ahead at the Building Industry," read in March, 1960, to an R.I.B.A. meeting by Mr. Peter Trench, the Director of the N.F.B.T.E. who said, *inter alia*, " the surveyor . . . has played himself into a permanent place in the first eleven. Having been tried as a bowler of builders he is now playing some delightful forward strokes on costs as well as occasionally doing some brilliant saves on the boundary off loose architectural bowling!" Mr. Trench went on to express the opinion that the emphasis in surveyors' offices might well change from bills of quantities to cost consultancy.

There can be no doubt that, from the builder's point of view, quantity surveying as an independent profession has been established as an essential component of the industry and one which has a probably increasingly important part to play in the future.

A fortnight before Mr. Trench read his paper, Mr. W. A. Allen, B.ARCH., A.R.I.B.A., gave an address at the R.I.B.A. entitled " The Profession in Contemporary Society " towards the end of which he referred to the building professions : " the engineers of various types, landscape architects, town planners and quantity surveyors." He went on to stress the necessity for these professions to work together economically and enunciated the principle that a profession derives its authority for comment and action only from its specialised training and, conversely, that a profession should not attempt to speak or act in fields for which its training has not prepared it.

Mr. Allen concluded by saying that the leadership which devolves upon architects calls for initiative to ensure that the building professions as a group function together in a mutually satisfactory way on behalf of the community.

From this we may assume that the architects also recognise us as a part of the scheme of things.

Nothing is easier than to criticise other people, professions or organisations, but that is not our present object. There is evidence that the building professions are becoming aware of certain deficiencies and are seeking the means of becoming more efficient, and we must become more efficient in our specialised sphere. The general pattern of the building industry is, and is likely to continue to be, a constantly changing one, and we must accordingly remain flexible and always prepared for change.

So far we have not considered the most important factor in the whole question, the building owner. Without him we should all be out of work. There is, it seems, a quite understandable, but equally indefensible, tendency for the members of the building team to become so immersed in sorting out their mutual and individual problems that the building owner's views are largely forgotten or ignored. This is not to say that he will not ultimately benefit from the team's researches and discussions but, especially from our own angle, it would seem to be a good idea to start by considering the requirements of the building owner, leaving the other members of the team out of the question for the moment, and investigating how best we can contribute our quota towards his needs.

For present purposes we may ask three main questions, the answers to two of which may provide a pointer to our future practice and procedure :—

1. What does the building owner require of the building industry?
2. What contribution to these requirements can, and

should, the quantity surveyor make?

3. How is the quantity surveyor to give the service required of him?

In the hope that it will provoke useful discussion I shall now attempt to answer these three questions. I am fully aware that there must be many "ifs" and "buts." This is inevitable in any involved matter such as building. So much depends on what other people do and how they do it. For these reasons the questions can only be discussed broadly in the time at our disposal.

THE BUILDING OWNER'S REQUIREMENTS

In the first place the building owner decides that he wants a building of some sort, it may be all new, or an extension to old premises or simply the alteration of a building. His ideas may be crystal-clear or quite nebulous. He starts his quest for a building by approaching either an architect or a builder. It then falls to the lot of the person approached to translate the prospective client's ideas into technical terms, to assess the practicability of his wants and advise him accordingly.

The factor usually uppermost in the client's mind is finance. It may be a plain "how much will it cost?" or "what is the least amount it can be built for?" or "how much can I get for £X?" The relative importance of other features may also arise, such as the means whereby the best and quickest return on a given capital investment can be obtained, or the speed with which the productive capacity of the proposed building can be brought into use to capture or retain a market, or even the prestige value of an ostentatious appearance of affluence upon the impressionable or the snob, and so on right down to the man with slender resources who wants to build his own small house.

Hard on the heels of these considerations will come the questions "when can we start building?" and "how long will it take?" Then, inevitably, "how much will it cost altogether including the usual extras and professional fees?"

It would be easy to enlarge on the foregoing outline and to trace the normal course of subsequent events and the many and varied causes for the client's probable disappointment at apparently excessively slow progress and so on, but to do so in this paper would be a waste of time.

The building owner's requirements (and needs) can be summarised, on broad lines, as :—

1. Value for money.
2. A building designed for its specific purpose.
3. Accurate preliminary estimates of cost.
4. Early starting date.
5. Speed of erection.
6. Up-to-date information on cost variations during erection.
7. Ascertainment of final total cost as soon after completion as possible.

THE QUANTITY SURVEYOR'S CONTRIBUTION

All members of the building team are involved in meeting some or all of the seven items given above. This is neither the time nor place to advise architects or builders how to increase their efficiency however tempted some of us, from our relative ignorance of their problems, may be.

The common theme running through the requirements is cost and speed. The quantity surveyor is directly concerned with all the above requirements except design and erection. His contribution may therefore be summarised thus :—

1. Reliable cost advice at, or even before, sketch plan stage and continuously thereafter.
2. Advice on tendering procedure (on occasions even if not requested).
3. Preparation of tendering documents with speed and accuracy.
4. Provision of cost information during currency of contract with particular reference to probable extras and savings.
5. Early settlement of final accounts.

HOW TO GIVE THE REQUIRED SERVICE

The short answer to this problem is implicit in one word : "efficiency." The attainment of maximum efficiency is a problem in itself to which reference will be made later.

Let us first consider our concern with building costs. It would be almost indecent in these days not to refer reverently to cost research and cost planning. In recent years these two "gods" have assumed positions of greater importance than they occupied before the war. Nevertheless, heretical though it may sound in some ears, there is nothing new in this. We used to call the whole process "approximate estimating."

It is, of course, true that the introduction of new materials and techniques has broadened the whole field from which cost information must be gathered. The present-day work in this sphere might be termed "applied approximate estimating" and probably fully warrants its new nomenclature.

We have seen that the builders envisage our "cost consultancy" function as an increasingly important one, and the architects, by implication if not in so many words, may well be of the same mind.

There must be general agreement that we cannot know too much about costs and it is obvious that we must keep our knowledge right up to date. I feel, however, that we must guard against getting things out of proportion. There is a danger that enthusiasm for, and fascination with, cost research, if carried to excess, could defeat its own ends. Theory is one thing but its proper application to practical problems is another. Cost analyses, however interesting, must be used with great care and intelligence for cost planning.

It seems probable that we may have to extend our cost studies into the wider sphere of what could be termed "building economics." In future we may be consulted on the wider cost aspect of a scheme, outside the actual building costs, so as to take account of site values, rates, rents and the implications of the costs of public services in a building scheme. Here, of course, we shall be overlapping some of the specialities of other sections of the Institution's membership—(an example of the advantages of several allied professions under one "big umbrella").

This probable, if not inevitable, expansion of our activities may well lead to a two-tier structure in the profession. There may have to be those who specialise in "traditional" quantity surveying and those who devote their energies to cost consultancy within every firm. It will remain of paramount importance that bills of quantities of the highest possible standard shall be produced. The cost specialist will not necessarily be of a superior grade to the quantity specialist. The two functions are complementary and training for both would be common up to a certain point. Beyond this point it will probably become necessary to allow suitably mentally-equipped personnel to concentrate on one aspect undisturbed by the complexities of the other.

If the public is to benefit to the full from our cost knowledge we must find means of encouraging architects to make more use of us at the beginning of their schemes and of acquainting the public of the service we provide. Publicity is a matter

to which reference will be made later.

There is no need to stress the desirability of early settlement of final accounts but I think the careful recording of the effects of variations could well be given more attention during the building period. So long as the final account comes out reasonably close to the contract figure the client is not likely to be worried. If, however, a sizeable extra occurs the client should be informed at the time so that he may be prepared. This could be done by reporting in the normal way to the architect and sending a " copy for information" to the client. In a similar way any unexpected saving should be reported to give the client the opportunity of incorporating some possible refinements or luxuries he could not otherwise afford.

Let us now turn to consideration of the more technical questions of the speedy and accurate production of tendering documents. There is no need to say much about the need for accuracy but the question of speed looms large on our horizon.

Every job has to be taken off and worked up and I have no intention of discussing the relative merits of the " trade by trade " and the quite erroneously termed " London " systems of taking off, nor the pros. and cons. of mechanised working-up as opposed to manual labour, except to say that, in my opinion, an essential part of the training of a quantity surveyor is working-up and billing the hard, laborious way.

My concern is with the size of the actual bill of quantities, and not whether it is right- or left-handed. In general it is much too long for the simple reason that it contains far too many items. I think I know all the arguments advanced to prove the necessity for meticulous detail for accurate estimating but I am not entirely convinced. I think that a simplified method of measurement is inevitable and the sooner it can be produced and put into general use the better for the building industry. It is a generally accepted fact that something of the order of 80 per cent. of the value of a contract is covered by not more than 20 per cent. of the items in the quantities. This does not seem very efficient. Many of the items are virtually impossible to price scientifically. It would be very interesting, though quite impracticable, to discover how long it takes to measure, work-up, type, read over, price, extend, total and check at each stage, the 80 per cent. of minor in comparison with the 20 per cent. of major items. My guess would be that the present system would be proved grossly uneconomic and if the number of bill items could be reduced by 50 per cent. there would be an appreciable reduction in overall building costs.

Of course, some people would see in the above suggestion the danger of encouraging tendering on the American system, but I have no fears of that in the British Isles in the foreseeable future. We have nothing to learn from other countries about our job ; we can teach them a great deal already but that is no reason for adopting a static attitude. We must streamline our work as necessary to fit in with the pace of modern life.

There is a school of thought which advocates standardisation as an element of efficiency. We already have standard forms of contracts, sub-contracts, etc., and a standard Method of Measurement. It only requires a little less originality on the part of contemporary architects to make possible a standard bill of quantities! This, however, would be of little use because the buildings themselves would also be standard and probably factory made on a production line. We should, by that time, have reached the ultimate in monotony as envisaged by Sir Compton Mackenzie in his book " The Lunatic Republic."

Standardisation, in common with many other beneficial things, can be carried too far. The universal adoption of standard descriptions for quantities could be the end of quantity surveying.

Another school of thought sees the future of quantity surveying in the hands of a relatively small number of very large firms to be produced either by the absorption of smaller firms into the larger firms or by amalgamation of groups of small firms into large units. Something on these lines may well come about but, in my opinion, there will still be a place for the smaller concerns where personal service will be rewarded. It will probably be advantageous for the smaller concerns to have some form of association with other similar firms so that collaboration may be possible in times of stress.

We shall not reach maximum efficiency unless our training and education are on the right lines. The revised educational policy of the Institution should go a long way towards providing for the right kind of training of future members.

Some scheme of joint education appears to me to be highly desirable both to ensure that education in the basic subjects with which architect, builder and quantity surveyor are all concerned is common and also so that future practitioners start their careers with a clear conception of the functions, approach and problems of the other branches of the industry. In this way the pathway towards the working together economically, to which Mr. Allen referred in his paper, should be smoothed. After a time, during which personal contacts of considerable future value would be made, such a scheme might envisage a common preliminary examination acceptable to us, the R.I.B.A., and the I.O.B. After a further period there could be another examination designed as a sort of filter to indicate in which specialised sphere the examinees were most likely to succeed. If such a test could be devised it might go a long way to preventing the wastage of square pegs in round holes.

Efficiency, however, is not just an aim for the future, it is immediate and constant. A profession is no better than its weakest link. Our standing in the minds of those who employ us depends on each individual member's efforts—there can be no letting up or leaving it to the juniors. Ours is a profession where education continues, like marriage, until death or retirement—we should remember this.

A few words on package deals will probably be expected and " few " is the operative word so far as I am concerned. Package deals are not new, they have been with us for many years and, in one form or another, will probably remain with us for many years to come. Whether or not their present apparent popularity be due to inefficiency amongst architects, dilatoriness amongst quantity surveyors, indecision of building owners or business acumen of builders nobody can say for certain. The worst types of package dealers will probably commit commercial suicide in time but the best have undoubtedly a contribution to make. What does seem obvious is that the introduction of an independent quantity surveyor between the client and package dealer is generally to the advantage of all concerned.

Related to package deals is the so-called "all-in service." From the building owner's point of view this has certain attractive features. Here again, however, I feel sure that the quantity surveyor would serve the building owner better as an independent consultant. With the best will in the world, the impartiality of one member of a group, formed to act as one, must be at least slightly suspect.

Everything possible must be done to maintain the independence of the quantity surveyor. The growing practice of his direct appointment by the building owner is to be

encouraged because we cannot give our best service without absolute freedom, any other arrangement must impair impartiality.

Granted this freedom of action I see no insuperable obstacles to our becoming not only cost consultants and producers of tendering documents but contract co-ordinators as well. I am afraid that architects, in their preoccupation with design in all its aspects, have lost ground ; engineers and other similar consultants have come more into the picture and builders have become erection organisers. Quantity surveyors, by their training and experience, their habit of sitting back and viewing the general tangle from a detached position, are ideally placed to direct operations from start to finish without actually usurping the functions of any other body. Building has become so complex an operation that somebody is needed to organise things in such a way that all the specialists can spend all their time doing their own job under a detached direction that will ensure all the loose ends coming together at the right time and place. I feel sure we could perform this function with little, if any, more effort than that normally wasted in frustration.

In the past we tended to sit in our offices and, almost miraculously, work came in. Nowadays, let us face it, we are almost forced to be more commercially minded. We have a service to sell, we know the building owner will benefit from it but we cannot advertise. It remains just as important as ever to do our work conscientiously but we still need publicity. How is this to be achieved?

There is no complete short answer to this question. Really informed articles in papers and periodicals which are known to be read by intelligent potential building owners would be one useful form of publicity, although I have a feeling that the type of person who would read such articles would in all probability employ a quantity surveyor in any case. If, however, articles could be produced to convince the commercial tycoons that the possible pit-falls in package deals could be largely eliminated by the employment of independent professional advisers, a great deal of good might result.

This still leaves the smaller potential client, the man in the street, largely untouched. The only suggestions I wish to put forward here are : (*a*) that individually we should never lose an opportunity of letting people know what we are and what we do and, (*b*) that the introduction of a standard name board similar to, but quite distinctive from, that of the R.I.B.A. should be authorised and that the fullest possible use should be made of such boards. Not many years ago I was opposed to this idea on the grounds that people who ought to employ us would not go around looking at names on scaffoldings but, to-day, I incline to the belief that maximum, if controlled, publicity for our services will be, in the long run, to the benefit of the public.

Everything I have said so far presupposes that the building industry will continue to develop logically from its present structure. There is, however, a suggestion in some quarters that ours is an industry high on the list of those that should be taken into public ownership. The Institution must hold itself aloof from party politics but does, nevertheless, advise governments of any complexion as to the possible and probable results of any proposed legislation affecting those matters concerning which our members have expert knowledge. I am not aware that the possibility of a nationalised building industry has yet been considered by the Institution or any of its committees. My purely personal opinion is that nationalisation would not be in the public interest. I do not propose to attempt a forecast of our future should such an event take place. If there is a threat, however, an interesting argument could arise as to whether the best defence would be to increase the overall efficiency of the industry to such a pitch that even the most persuasive politician would fail to convince the most credulous constituent that any improvement would be possible or any advantage accrue to building operatives or public, or alternatively to aim at increasing inefficiency on the grounds that more political capital is to be made out of the nationalisation of a flourishing industry than a moribund one.

CONCLUSION

The first essential for quantity surveyors is, in the main, to preserve their independence as professional advisers to the building public and industry.

We have become used to the inevitable spread of specialisation in all walks of life. We are, I believe, beginning to appreciate that specialisation is useless in isolation. We are also, and not without some success, seeking the means whereby each specialist skill may best supplement the others. Each component of the building team must put its own house in order and, in so doing, and preferably by mutual agreement, decide what function to discard if some other party is better equipped to undertake it.

We must never easc up in our efforts to achieve and maintain maximum efficiency and must always be prepared to expand our work into " fresh woods and pastures new " if by so doing we can provide a better service to the community.

The likely expansion of our work into the wider sphere of building economics and contract co-ordination must not detract from our present primary function of preparing tender documents and the exercise of measurement and financial control of contracts but must be supplementary thereto. Future possible change of emphasis should then be a smooth and natural phase of evolution.

It is impossible for us to know too much about building costs and none of us can afford to neglect any opportunity of gaining that experience which alone can enable us to apply our knowledge to any particular set of circumstances. This may, perhaps, seem a diplomatic way of saying that cost data compiled in our own offices will probably be found in practice to be of much greater value to us as individual practitioners than the findings of our own Cost Research Panel and other similar bodies. This is not entirely the case. The Cost Research Panel has done, and is still doing, a magnificent work. It has not only shown the way but has set in motion a machine which will continue to produce information of inestimable value as cost research spreads over the many and varied hitherto unexplored regions of cost. The panel's work is, in my opinion, the most telling piece of publicity that our profession has yet achieved.

Further publicity addressed to a wider public is desirable, but it must be backed by technical and professional competence and efficiency of the highest order.

Education and training for the profession is receiving attention. We all have a part to play in this activity.

It may have been noticed that I have made no specific reference to practice and procedure overseas. There is a reason for this omission. It was probably Dr. Johnson, or somebody similar, who once said : " When ignorant it is better to keep your mouth shut and be thought a fool than to open it and dispel all doubts." Much more remains to be said but it will be to our mutual benefit if somebody else says it and I only hope I have provided enough openings through which you may ventilate your opinions and ideas.

Practical Training and Post-Graduate Training for the Quantity Surveyor

The following two papers opened the quantity surveyors discussion at the Chartered Surveyors Annual Conference at Bangor, on 1st September, 1960.

1. By W. JAMES (Fellow)

INTRODUCTION

I am not happy about the title of this part of our discussion and I have therefore altered it to "Post-Qualification Training"—for not many of us have been to a University.

I am in favour of this post-qualification training because, as you will see in paragraph 25 of the Review of Educational Policy Report, the object of the Institution's examinations is merely to secure that candidates admitted to corporate membership are academically qualified and technically equipped *to enter upon* a professional career.

In other words the passing of the qualifying examinations and the granting of membership are only a minimum datum line—the floor with no ceiling—which presupposes the need for further training of all members who have any aims to rise higher than the very lowest rung of the professional ladder. Datum lines, in any case, are nearly always fixed well below ground level—an unpleasantly airless and confined position in which to stay put.

THE ADVANTAGES OF POST-QUALIFICATION TRAINING

Until comparatively recently it was assumed that, for almost all members, all that was required in the way of post-qualification training was employment in an office plus occasional attendance at Institution meetings—and that in the office they obtained it as it were by absorption, with very little personal effort. This is where I am going to be controversial and say that if our profession is to make worthwhile progress, those members who wish to help it to do so, must be prepared to make some personal effort in combining with others outside their own offices in the pursuit of post-qualification training.

There is, of course, an important difference between pre- and post-qualification training in that the former is compulsory to becoming a chartered surveyor, whilst the latter is not. In advocating that members should take an active part, in combination with others, in post-qualification training, I realise that I am—to paraphrase something Sir John Wolfenden said—"asking of the not-so-young that they should do something difficult," not only for its intrinsic worth, but also "because as a very valuable indirect result you will get a training in determination, courage and perseverance."

You may recall that he also defined education as the influence of one person on another—and in spite of what Mr. Part said, I consider "education" to be "training," or at least an important part of it. Mr. Part himself made the point that besides having absorbed a given amount of knowledge, a professional man "should have got a real grip on it and be able to make effective and flexible use of it in practice."

It is self-evident that there are advantages, no less to principals than to assistants, in combining in post-qualification training with others—and not only with other surveyors. I make a point of saying "not only with other surveyors" because I have been struck by the indirect result which flows from group training in which others who are not surveyors also participate. In this not only does the surveyor broaden his knowledge and understanding of the outlook and problems of others, but they also obtain from him a greater understanding of what he does.

In this connection I again quote from Mr. Part's address "The professions are a great force in modern society, and because this is so, they have a duty, it seems to me, to explain their duties to the public."

FACILITIES FOR POST-QUALIFICATION TRAINING

I have often heard it said that when a young surveyor has passed his final examination, he reckons he knows everything. In pre-war days, I suggest that this sort of complacent feeling was encouraged because facilities for post-qualification training were so very limited. This is not the case to-day, and I am convinced that it will be even less so in the future.

I shall spend the rest of my time in describing some of the opportunities for combined post-qualification training for chartered quantity surveyors which are being developed. In doing so, however, let me first emphasise one cardinal point. Those who take part must be willing to give freely of their own knowledge as well as to take advantage of that of others. Where, by way of simile, would medicine or science be to-day without the willingness of its practitioners to disclose their discoveries to others, so that they in their turn can make further advances along the same roads? Having attended quite a number of post-qualification training exercises, I can assure those of you who have not that this is the spirit in which they are operated.

Junior Quantity Surveyors Discussion Groups

Since 1948 under the stimulus of the Junior Organisation Quantity Surveyors Committee, discussion groups have been formed in London and various provincial centres. All junior chartered quantity surveyors can join a group if one exists near them or start a new group if there is none near at hand. Each group is composed of about 20 junior surveyors from a number of different offices and they meet at regular intervals to study some aspect of practice with a view to understanding and discussing the problems within it.

I have here the Notes for Guidance of Discussion Group Leaders and a list of over 50 items which groups have discussed. These include, for instance :—

1. The quantity surveyor and the bankruptcy of a contractor.
2. Combined bills and specifications.
3. Specialisation in large offices.
4. Advantages and disadvantages of split contracts.
5. Price rings.
6. The architect's pre-contract problems; town planning and local authority approvals, party wall agreements, etc.

7. The measurement of unusual forms of construction.

Every member of the group is expected to take some part in the discussion.

The groups sometimes invite guests, such as members of the senior Quantity Surveyors Committee, young architects, builders and lawyers to take part in their meetings.

JUNIOR QUANTITY SURVEYORS WEEKEND COURSES

For the last eight years the Junior Organisation Quantity Surveyors Committee have organised annually a weekend training course for junior chartered quantity surveyors at Trent Park, North London. I have attended the opening night of five of these, in my capacity as an officer of the Quantity Surveyors Committee, and I am convinced they are of great benefit to those who take part. This was especially the case with the latest one, in April this year, on the subject of the new Shell building on the South Bank Site in London, entitled "Below Ground Level." At this, the talks by Mr. J. B. Cannell on the contract techniques which were devised for this immense project—the largest in Europe—particularly exemplified the spirit, to which I referred earlier, of generously disclosing to brother surveyors hard-earned practical experience and professional ingenuity.

JUNIOR ORGANISATION WEEKEND COURSE, 1960

The main Junior Organisation Committee this year also arranged a weekend course of great interest (open to all junior chartered surveyors until the "oversubscribed" list had to be closed), at Pembroke College, Cambridge, on "Development, Finance and Take-Over Bids." This, I understand, was an outstanding success.

COST RESEARCH AND COST PLANNING TRAINING

The Cost Research Panel with the authority of the Quantity Surveyors Committee has given great impetus to post-qualification study and training.

First, in collaboration with the R.I.B.A., it has sponsored numbers of cost control conferences, in various parts of the country, open to chartered architects and quantity surveyors. The papers given at these conferences can be purchased from the R.I.B.A., and give a good idea of the scope of the matters discussed. These do not, however, convey the value to those attending of the thought-provoking personal exchanges which occur at such conferences.

Secondly, the Panel and the Committee have organised, in conjunction with the Brixton School of Building in London, two cost planning courses for chartered quantity surveyors. There are to be more. The papers given at these can be bought from the Institution and the training benefit of these courses can hardly be over-estimated.

Thirdly, the Panel have asked the quantity surveyor members of the Institution Branches to help in the work of the Panel by forming study groups of their own to tackle some aspect of cost research. Cost research is similar to a team game—reading about it and trying to play it all on your own is but a pale shadow of tackling it as a group. I personally have learnt a great deal from working with The Wilderness Cost of Building Study Group and The Cost Research Panel. I am sure that this will also be the case with those who collaborate in the working parties, which are open to all chartered quantity surveyors in those Branches which are responding to the Panel's request.

The Quantity Surveyors Section of the Bedfordshire and Hertfordshire Branch three months ago organised a Saturday course on cost planning which I was privileged to attend. A great deal of productive thought was engendered and it was a most successful form of post-qualification training.

MANAGEMENT AND PRACTICE TRAINING

The National and Regional Joint Consultative Committees of Architects, Quantity Surveyors and Builders have also been organising for the last three or four years courses in various parts of the country on various aspects of building practice, mainly under some kind of "management" title. These courses are open to chartered quantity surveyors, architects and builders—sometimes to clients and specialist sub-contractors also. I have attended four of these and can speak to their worth for training purposes.

At the York Institute of Advanced Architectural Studies several courses of great value to quantity surveyors have been held, with the approval of the Quantity Surveyors Committee. The last one was entitled "Recent Developments in Quantity Surveying."

FUTURE DEVELOPMENTS

As I am in Wales and not in my native country, I can perhaps risk a prophecy and say that I think organised post-qualification training is only just beginning. There is mention in the Review of Educational Policy Report of some new post-qualification diplomas in which I hope quantity surveyors will show an interest, in land economics and building technology. Mr. Part has referred to post-graduate and research work in connection with the re-organised Regent Street Polytechnic. Other technical colleges such as the Brixton School of Building (and I hope the College of Estate Management) have plans for post-qualification training courses.

Opportunities for taking part in post-qualification training are available for those willing to make the necessary effort. The "carrot" for doing so may perhaps be termed the advancement of professional knowledge; whilst the "stick" can be called the need for greater professional efficiency in the face of competition from the package dealer.

2. By E. N. HARRIS, A.F.C. (Fellow)

There has been little variation in the system of quantity surveyor's education for as long as anyone can remember, but there are now certain factors which indicate the need for change. The most important is, I think, the Goverment's policy of encouraging full-time education as opposed to evening classes and correspondence courses. Although these latter forms of preparing for examinations are at present still the most widely used, I believe we must plan for a fairly rapid change to full-time courses and sandwich courses.

The other important factor is the Report of the Special (Review of Educational Policy) Committee which alters the whole emphasis of our examination system. If the principles contained in this Report are accepted, practical training will play an even more important part than before. Academic may precede practical training. The suggested academic training emphasises the need to train candidates to become surveyors rather than to train them to pass examinations.

The Quantity Surveyors Committee are well aware of the vital importance of sound practical training and have prepared a suggested training routine which will be circulated to members in due course, drawing their attention to the importance of ensuring that candidates in their office are given practical training and experience in the full scope of the quantity surveyor's work. It is intended only as a guide, and is based upon the general pattern of practical training considered to be good practice to-day.

The increase in the number of full-time students and the introduction of sandwich courses will have far-reaching effects

on practical training. It will have to be completed in 2-4 years instead of 4-7 !

Under the present examination system, the average time for qualification is 6-7 years. This allows candidates in offices a considerable time for practical training and I suggest that much of this time is wasted. Private practitioners have always advocated learning the profession by working in an office. To what extent has this view been held, unwittingly, for our own convenience ? Have we supported this system to ensure the supply of workers-up or junior takers-off ? Clearly if the changes in examination and training for them take place, then we will have to make other arrangements for getting working-up done and revise our ideas drastically on practical training.

Perhaps you would imagine yourselves for a few minutes in a Utopian quantity surveying world, where workers-up are two a penny and all you have to do is train professional quantity surveyors quickly. Would it be possible in these circumstances to complete the practical training of those candidates who have passed the academic parts of their examinations, in two years, or those who train fully in an office, in four years? If it is possible, how could it be done? I am certain that it is not being done at present, but if we are to encourage a good quality entry into our profession, it must be done.

Government policy on training in technical colleges has emphasised the need for arrangements to be made for sandwich-course training. This will also require a change in our office practices. Your views on the methods of fitting in such courses to our office routine and the thickness of the sandwich, *i.e.*, duration of full-time training and practical training within the sandwich, are urgently needed.

Finally, there is the problem of the best time to undertake practical training when full-time courses are taken. Is it better that the practical training be at the beginning or the end, or should it be in the middle? Should the academic training be divorced from the practical ? Educationalists feel very strongly that all the examinations for the profession should be allowed to be taken from full-time courses *before* any practical training. The Special Review Committee's Report supports this view, except that quantity surveyors point out that their suggested final examination is entirely practical and must therefore be taken after practical training. It is appreciated that there will inevitably need to be flexibility about this.

Quantity Surveyors Committee

EXTRACTS FROM THE MINUTES

A meeting of the Quantity Surveyors Committee was held at the Institution on 19th October, 1960, and extracts from the minutes are published below.

Mr. E. C. Strathon

The Committee welcomed the Senior Vice-President who was attending a meeting of the Committee for the first time.

Fédération Nationale des Métreurs-Vérificateurs Patentés de France

Two copies of the Report of Mr. William James' visit to Lille in May, 1960, have been placed in the Library. (An abridged version is published on page 290 *ante*.)

Officers of the Standing Sub-Committees, Session 1960-1961

The following members have been elected Officers of the Standing Sub-Committees for the Session 1960-1961 :—

Practice Sub-Committee—Chairman—Mr. J. G. Osborne (Member of Council) ; *Vice-Chairman*—Mr. E. P. Stewart, C.B.E. (Fellow).

Fees Sub-Committee—Chairman—Mr. C. T. Every, C.B.E. (Member of Council) ; *Vice-Chairman*—Mr. E. Norman Harris, A.F.C. (Fellow).

Education and General Purposes Sub-Committee—Chairman—Mr. E. Norman Harris, A.F.C. (Fellow) ; *Vice-Chairman*—Mr. Rex Procter (Member of Council).

New Zealand Standard Specification : Methods of Measurement of Building Works

The Committee agreed that candidates for the professional examinations in New Zealand be permitted to use in the subject of " quantities " either the New Zealand Standard Specification—Methods of Measurement of Building Works or the Standard Method of Measurement of Building Works.

One-Day Conference " Education for the Quantity Surveyor "

A one-day Conference on " Education for the Quantity Surveyor " will be held at the Institution on Friday, 2nd December, 1960.

London County Council : Amendment to Form of Agreement

The Committee agreed to a request by the L.C.C. that certain amendments be made to the Form of Agreement which is used in those cases where private firms of architects and also firms of quantity surveyors are employed.

Interim Report on the Use of Computers for Working Up

After further consideration by the Quantity Surveyors (Education and General Purposes) Sub-Committee, the Interim Report by the Working Party on the use of computers for working up is to be published.

Officers' Conference, Tuesday, 15th November, 1960

The agenda for the fifth informal Conference between the Officers of the Committee and the Chairman and Honorary Secretaries of the Quantity Surveyors Sections of the Branches was approved.

Quantity Surveyors Committee : Revised Constitution

The whole Committee is to be subject to election in 1961, some members being elected for two years and others for one year in order to comply with the bye-laws. Details of the procedure will be sent to all Quantity Surveyors Sections of the Branches.

Overseas Contacts

(*a*) *United States of America*—Mr. P. O. Adamson (Professional Associate) has sent the Committee news of his progress in private practice quantity surveying in San Francisco.

(*b*) *Commonwealth Visitors*—Mr. H. Wexler (Fellow), the Institution's Honorary Corresponding Secretary in Australia, Mr. T. C. Wolferstan, Honorary Secretary to the Institute of Quantity Surveyors (Australia), and Mr. A. O. Simpson, M.C.Q.S., the representative of the Chapter of South African Quantity Surveyors visited the United Kingdom during the summer.

Quantity Surveyors Statistical Survey

The Committee received a report on the results of the first enquiry into building work in hand in quantity surveyors' offices. A second enquiry was made in October, 1960.

Officers of Quantity Surveyors Sections of Branches, Session 1960-1961

The Committee noted with interest the election of the following as Officers of the Quantity Surveyors Sections of the Branches :—

Branch	*Chairman*	*Honorary Secretary*
Gloucester, Somerset and North Wilts.	A. H. Randell.	G. Clifton.
South Wales.	L. C. Patterson.	B. E. Field.
Surrey.	R. F. Lane.	K. Massey.

The possibility of forming a Quantity Surveyors Section in the Middlesex and Urban Essex Branch is to be explored at a meeting at the Institution on Tuesday, 25th October, 1960 ; the possibility of similar action is being examined by two other Branches.

B.B.C. " Building Matters "

A new series of the B.B.C. programme " Building Matters " has begun. Quantity surveyors are represented by Mr. A. S. Roberts (Fellow).

Mr. William James

The Committee congratulated Mr. William James (Member of Council) on his election as Chairman of the recently formed Internal services Committee.

Announcements and Publications

STANDARD METHOD OF MEASUREMENT OF BUILDING WORKS

" Heating and Ventilating Engineer " Supplement to the Fourth Edition

Following many requests, the Standing Joint Committee for the Standard Method of Measurement undertook a complete revision of section 16 of the 4th edition, in collaboration with the Trade Associations particularly interested. This revision has resulted in a more comprehensive method of measurement and covers a wider scope of work in greater detail.

The Committee have decided that it would be in the interests of all concerned to issue this document as a supplement to the 4th edition, rather than to wait to incorporate it in the forthcoming 5th edition, for use as an alternative to the existing section 16, Heating and Ventilating Engineer, but subject to the same general principles.

Copies can be obtained from the Institution, price 5*s.* post paid.

BUILDING RESEARCH STATION DIGEST

Digest No. 4 (*New series*).—" *Repairing brickwork* "

Brickwork, introduced into this country in Roman times, has become the traditional material in many districts for all forms of permanent building construction. The demand for clay bricks and the more recently-developed concrete and sand-lime bricks continues to increase—a sufficient confirmation of their reputation for reliability. Brick buildings, however, like any other can suffer damage through accident or long neglect and also as the result of deficiencies in design, materials or workmanship.

A note issued by the Building Research Station in 1945, and now out of print, dealt with the repair of brickwork damaged by fire and bombs. The note has continued to be in demand as a guide to the treatment of brickwork damaged through other causes, several of which have been described individually in earlier Digests and other publications. The present Digest is intended to summarize this information, especially that relating to methods of repair; its aim is not to over-emphasize the liability of brickwork to damage, but rather to point out certain risks that can be avoided and, more particularly, to indicate any special precautions that can be taken in the course of repair work to prevent recurrence of the trouble.

GOOD HOUSING DESIGN COMPETITION

With the object of encouraging a high standard of design and layout in housing schemes, the Minister of Housing and Local Government has decided to hold the first of a series of annual competitions early next year. The 1961 competition will cover groups of at least ten new dwellings on one site completed either by public authorities or private enterprise between 31st December, 1955, and 31st December, 1960. The closing date for entries is 28th February, 1961.

Copies of entry forms and of notes on the competition may be obtained from the Secretary, Awards for Good Design Competition, Ministry of Housing and Local Government, Whitehall, S.W.1, *or* Cathays Park, Cardiff.

BUILDING PUBLICATIONS

BUILDING RESEARCH, 1959. Department of Scientific and Industrial Research. (H.M.S.O., Price 7*s.*)

STATISTICS ON CONSTRUCTION. The Federation of Civil Engineering Contractors. (Price 1*s.*)

BUILT-UP ROOFING IN BUILDING CONSTRUCTION. Members may obtain copies, free of charge, from the Felt Roofing Contractors Advisory Board, Victoria House, Southampton Row, London, W.C.1.

REPORT ON RESIDENTIAL CONFERENCE OF ARCHITECTS, QUANTITY SURVEYORS AND BUILDERS held at St. Edmund Hall, Oxford, in April, 1960.

FLAT AND PITCHED ROOF CONSTRUCTION : COMPARISON OF COSTS." Langley London, Ltd., 163, Borough High Street, London, S.E.1.

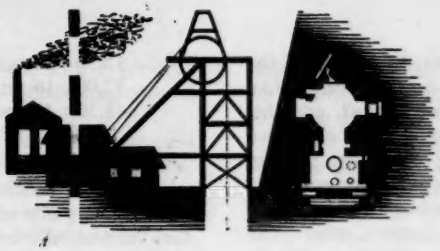
QUIET PLEASE : A simple account of acoustics, noise and noise reduction. Copies obtainable from the Building Products Division, Bowaters Sales Company Limited, Bowater House, London, S.W.1.

SINGLE-STOREY INDUSTRIAL BUILDINGS. Cement and Concrete Association, 52, Grosvenor Gardens, S.W.1.

Building Bulletin, No. 13.—FUEL CONSUMPTION IN SCHOOLS (Second Supplement). (H.M.S.O., 1*s.*)

CHOICE OF CAREERS No. 16.—THE ARCHITECT. Central Youth Employment Executive. (H.M.S.O., 1*s.*)

National Building Studies Special Report No. 31.—MOBILE TOWER CRANES FOR TWO- AND THREE-STOREY BUILDINGS. (H.M.S.O., 4*s.* 6*d.*)



LAND SURVEYING AND MINING SURVEYING

Surveying in Northern Australia

By Major A. G. BOMFORD, M.A., (Professional Associate) R.E.

The following paper will be presented at a land surveyors general meeting to be held on Thursday, 15th December, 1960, at 5.45 p.m. The paper will be illustrated by coloured slides.

Australia is a very big country, as big as the United States, but whereas the population of the U.S.A. is over 150 million, the population of Australia is only 10 million and half of this number live in the five main cities. In the Northern Territory (population 16,500 in 1954) there are only three towns with a population of over 1,000, and in the northern half of Western Australia, only two. Inland there is a lot of sunshine, little rain, and it is hot and dry. There are some areas of empty sand desert, but more typically the rather flat countryside is scattered with gum trees, between which grows spinifex and after a shower of rain perhaps a little grass. Where there is grass and water, the country can support cattle, and in the far north cattle-raising is the predominant industry. A white man was speared in the bush as recently as 1935 but nearly all the aborigines now work on cattle stations or live in missions. Aborigines are occasionally employed as guides in trackless country, but they do not provide a source of cheap labour for survey parties. Surveying in Australia is thus very different from surveying in Africa. There is a well-known story of an African who said to his European surveyor—"Tell me, bwana, who carries the loads in England where everybody is a bwana ?" This problem arises very acutely in Australia.

For many years the geodetic survey of Australia made slow progress. Primary triangulation was usually difficult and always expensive, and such money as was available was better spent on surveys in the populated areas. In 1956, primary triangulation was confined to chains in the south-east linking Sydney to Melbourne, Adelaide, Broken Hill, and Alice Springs. In 1957 tellurometers and commercial helicopters arrived in Australia, and the last four years have seen an astonishing change. The tellurometer traverse has become the standard method of providing geodetic control. Over 11,000 miles of primary traverse now encircle the continent, and the first geodetic adjustment of Australia will take place in a year or two.

There are numerous mapping agencies in Australia. I worked with only one of them, the Royal Australian Survey Corps ; and I was in Australia for only two field seasons, 1958 and 1959. I shall make no attempt to give a comprehensive or balanced review of all the survey work taking place. My aim is merely to give some idea how the parties I was with operated. The views expressed are my own entirely. We were engaged on first-order tellurometer traversing, and in 1959 we were also putting in height control for 1 : 250,000 mapping. This may seem an odd combination of tasks but with a helicopter it was in practice very convenient.

The cost of a precise tellurometer traverse is only a fraction of the cost of a first-order triangulation chain, particularly in flat or uninhabited country. The ideal length of line is something over twenty miles, and in order to see this distance the traverse stations need to be on the tops of hills, but they need not be on the highest and least accessible hill for many miles around, as is advisable on primary triangulation. Instead of a broad chain of stations, thirty miles or so in width, a single series of lines of sight is all that is required. Thus traverses can usually be run along existing lines of communication, and furthermore each individual station can usually be sited within reasonable distance of the road. However, unless a vehicle can drive to each station, a good deal of physical effort is still required from the surveyors. About 200 lbs. of equipment has to be carried up to each station. For precise work, some observations are best made after dark and either a camp has to be established at the station or the surveyors have to find their way down to their camp-site by torchlight.

Helicopters

It is sometimes necessary to run a traverse through uninhabited country where no roads exist. It is then economical to employ a helicopter. Flying in a helicopter is to most people undiluted pleasure, but it does not magically solve all the surveyor's problems. Some surveyors have visions of alighting effortlessly at a traverse station, complete with equipment and camp kit, making the observations, and flying effortlessly on the next day. Unfortunately in Australia most hill tops are wooded and such a happy state of affairs, though not unknown, is comparatively rare. More usually the helicopter is unable to land within several hundred yards of the station ; and after this initial landing the first survey party has a choice : either they can make an extensive clearing on the summit before the helicopter's next visit, or all the kit has to be carried up and down from the first landing place.

Secondly, one is apt to overlook the fact that helicopters require fuel. The further fuel dumps are apart, the less the payload of the aircraft. On our work the most economical

spacing for fuel dumps was as little as 20 miles. If the country is absolutely impenetrable to wheeled vehicles, fuel can be parachuted down from transport aircraft, and this has been done ; but it is usually prohibitively expensive unless one of the armed services is willing to do it as a military exercise. More usually, the bush is very nearly impenetrable to wheeled vehicles, but not quite, and while some surveyors are enjoying the airy pleasures of the helicopter, others may be enduring an arduous cross-country convoy in heavily laden six-wheel-drive vehicles.

Thirdly, even the smallest helicopters are extremely expensive and they are not very fast. " A pound per mile per minute " is a fair planning figure for a small aircraft suitable for survey operations such as a Bell G.47. A two-man survey party with its instruments, batteries, food, water and skeleton camp-kit was too heavy for a single lift ; and to advance the traverse team by a single 20-mile leg required about 200 miles of flying. Further, a helicopter contract is usually in the form of " £2,000 a month plus so much an hour," so that a rest day with no flying costs about £70. Thus helicopters are hard taskmasters ; from the start to the finish of the contract surveyors will usually find themselves working near the limit of their capacity.

Tellurometer Traversing

The technical work on our traverse was carried out by three groups of two men who lived at the traverse stations, moving forward one station daily. Very efficient support parties are required at the nearest helicopter fuel dump and at the nearest point of civilisation to maintain contact with headquarters and to ensure that food, fuel and spare parts come forward on demand. Wireless communication is essential. In easy country it is perfectly possible to traverse 200 miles in seven days, but for continuous work on a long traverse five stations or 100 miles a week is a reasonable aim. Alternatively, there is much to be said for the helicopter being employed on some other task like barometer heighting every other week or so. The traverse party can then work at full pressure for one week, go into camp to rest and compute the next, and then return to the hills again.

Of the three traverse parties, the forward party had the hardest work. The two surveyors flew forward together at 8 a.m. each day leaving their kit to follow on a second flight. The location of the forward stations had been selected by air reconnaissance and no one had previously set foot on the hills. They had to circle the hill in the helicopter to find a landing place as close to the summit as possible. If no space was clear enough for a landing they jumped off the hovering helicopter with their axes and cleared a landing site. They had to select the precise point for the station, carry up their kit, dig out a foundation, mix concrete and place the station mark and witness marks. The rear traverse line had to be clear by 13.00 hours, when the first tellurometer measurement was made ; then they cleared the forward line, made camp, had a meal, reduced their tellurometer observations, and shone their light from 5 to 7.30 p.m. In the morning they had to eat at dawn, pack up and be off in the helicopter again by 8 a.m.

The daily schedule for the centre party was as follows :—

06.30	First radio schedule.
07.00	Cook breakfast and strike camp.
08.00	Rear tellurometer measurement.
09.00	One surveyor flies forward with half the kit.
11.00	Second surveyor flies forward with half the kit.
12.00	Vertical angles and witness mark observations.
13.00	Forward tellurometer measurement.
15.30	Second radio schedule.
17.00	16 zeros of horizontal angles.
18.30	Azimuth observations : eight zeros to Sigma Octantis.
19.30	Longitude observations : six Almucantar pairs.
20.30	Cook supper and go to bed.

The rear party undoubtedly had the easiest time. They had the rear tellurometer measurement early in the morning, simultaneous reciprocal vertical angles at noon, the station monument to build in the afternoon, and their light to shine at dusk. The rear party can conveniently observe astronomical latitudes while shining their light in the evening. With this schedule, it will be found that even when the parties are moving forward a station a day, forward and rear tellurometer measurements of each line are separated in time by over 40 hours, which is technically advantageous as it gives the meteorological conditions a chance to change.

Unless rock was very scarce, the station monument was a rock wall around the station 2 feet high and 8 feet in diameter, with small cairns over the mark itself and the witness marks to protect them from the weather. These walls show up well from the air and give future surveyors easy access to the station mark ; yet a good wall contains about 2 tons of rock which even if the wall falls down should form a permanently visible and almost indestructible monument.

Astronomical Observations

It will be seen that the above traverse routine provides for astronomical observations at every station. The traditional routine on a traverse or triangulation chain has, of course, been to measure horizontal angles at each station and to make extremely precise astronomical observations at " Laplace stations " 150 miles or so apart. With the advent of the tellurometer traverse, however, the situation has changed.

Since the tellurometer measures the length of every traverse line with a probable error of about three parts per million, it is clearly desirable to obtain the azimuth of every line to this accuracy also, that is to say, about 0.6 seconds of arc. However precise Laplace azimuth observations 150 miles apart may be, it is impossible to guarantee the azimuths of the intervening traverse lines to this accuracy; whereas direct observations at a station can yield azimuths with a probable error of about 0.5 seconds within an hour. Longitudes of sufficient accuracy for the Laplace correction can be observed in an hour also.

Secondly, on a traverse proceeding steadily at a rate of a station a day, the various parties between them have ample time to make the necessary astronomical observations each evening. Previously, Laplace azimuth observations have required from three to five nights' work at every eighth station, an unprofitable delay which can now be dispensed with.

Thirdly, classical Laplace observations aiming at a probable error of 0.2 seconds of arc in latitude, longitude and azimuth are extremely difficult to make, and it is doubtful if such accuracies are in fact often attained in the field. To the apparent standard errors of the observations must be added unknown amounts for lateral refraction, personal equation, and time signal delay. Nor are the computations easy. To obtain the right ascension and declination of the stars to the accuracy required, it is necessary to compute with second differences, and to allow for short-term nutation. It is also necessary to correct time signals (after a delay of many months) for the difference between the reputed and the actual times of transmission. By contrast, latitudes, longitudes and azimuths with probable errors of about 0.5 seconds of arc

can each be obtained in one hour's work with a geodetic theodolite and a stop watch, and some refinements may be omitted from the computations.

Fourthly, on a tellurometer traverse, one of the greatest sources of error in the angles is likely to be lateral refraction, because high clear lines which are desirable for angular measurement are not suitable for tellurometer measurement. If the azimuth of every line is determined absolutely at each end, the mean stellar azimuth of the line will be comparatively free of lateral refraction errors. The situation is precisely analagous to observing reciprocal vertical angles.

Finally, in order to compute a tellurometer traverse to rigorous geodetic standards, it is necessary to reduce each measured length, not to sea level or the geoid, but to a precisely defined geometrical spheroid. Traditional Laplace observations 150 miles apart, however precise, yield hardly any information about the separation between the geoid and the spheroid ; but astronomical observations 20 miles apart with probable errors as high as 0.5 seconds of arc will give the separation with ample accuracy for the reduction of measured lines.

In high latitudes, or in countries where cloud cover persists throughout the year, astronomical observations at every station on a traverse are, of course, impracticable. Nor is it suggested that a survey party can make astronomical observations at every station without proper training, any more than classical Laplace observations can be made by an untrained team. But in countries with clear skies, astronomical observations at every station enhance accuracy of a tellurometer traverse and reduce costs.

Air Reconnaissance

To find the best route for a tellurometer traverse through country impassable to vehicles, it is necessary to travel either by horse or by air. We used a Cessna 172, a four-seater single-engine aircraft costing about £5,000, which does as many miles per gallon as a jeep. It was ideal for the job.

Air reconnaissance is an art in itself. The first essential is to have a pilot who can fly his aircraft among the tree-tops with absolute confidence and safety. Secondly, it must be realised that a single flight is unlikely to suffice. In order to find the best route for a traverse, prove intervisibility, and identify the stations with certainty, three flights may often be necessary.

In totally unknown country, the leader of the survey party will achieve little more on the first flight than to see for himself the type of country his party is going to operate through; how hilly it is, how wooded, where flat areas lie across which it would be impossible to traverse without towers, and how difficult it is going to be to drive in fuel. With luck, he will come back with a line marked on his map along which he thinks more detailed reconnaissance should be able to find a route for the traverse. After this flight an office reconnaissance on the air photographs may identify the more obvious stations, and will at least suggest which photographs should be taken on the next flight.

On the second flight the surveyor needs an assistant whose task it is to record compass bearings, flight times, and aircraft speeds. The surveyor in charge may himself sketch the outline of likely forward hills and record their compass bearings, but even when flying as slowly as 90 knots he has all too little time in which to think. Unless some records are made in the air it is extremely difficult on return to put on to paper any concrete facts about the proposed route. In the air, the surveyor needs all his wits about him spying out the land and considering alternatives. He has to consider such matters as tellurometer ground swing, the uniformity of meteorological conditions along each proposed line, the likelihood of lateral refraction, and above all of course to prove intervisibility. In wooded country, however low the pilot flies, right down among the tree tops or level with the top of the hill but slightly off to one side, it may sometimes remain uncertain if a ray goes through or not. We were in very difficult country and had many close grazes but in no case did a ray selected by air reconnaissance subsequently fail.

On arriving at the far end of the traverse on this second flight a possible line for the traverse may still not have been found, and the surveyor may have nothing but a few semi-legible sketches and a jumble of confused memories and ideas, while his assistant has a list of precise times and bearings but has little idea to which hill tops they refer. The return journey should solve most of the major problems, and some hard thought with the notes and sketches afterwards should enable the surveyors to select a reasonable route, to tabulate the bearings and distances of the proposed stations and to list the relevant air photographs.

When the traverse parties start observing, the surveyor in charge will usually be in the centre party. It is therefore very desirable that he should make a third flight accompanied by a member of the forward party to check the proposed route beyond doubt, identify each forward station from the previous hill top, keep an eye open for possible helicopter landing sites, select the precise location of the stations and mark them on the photographs.

It will usually prove too expensive to complete the reconnaissance by landing at each station by helicopter and the traverse parties may take the field without anyone having landed at any of the stations. After the traverse party has moved over the ground, it is almost inevitable that improvements in the alignment of the traverse will suggest themselves, and the leader may subsequently reflect what a pity it is that this station was not sited on a neighbouring knoll or that that station was not sited half a mile further west ; but it will then be too late to do anything about it. Air reconnaissance will probably not produce the best possible traverse, but there is no reason why it should not produce a perfectly good one.

Annotation

Our light aircraft was also used for the annotation of the air photographs, to assist in the identification and interpretation of detail. In northern Australia, the cattle stations are widely spaced—a million acres is the legal limit to a holding, and many stations are close to the limit—and each has its own air-strip. The surveyor questioned the station manager about the location of his fences, cattle yards, and water bores, which with the homestead itself formed the only man-made detail needing annotation, and would provisionally mark them on the photographs in chinagraph. The surveyor then climbed into the plane, often with the station manager as well, located the detail from the air, pinpointed it on the photographs, and inked up the photographs immediately on return to the air-strip.

Barometric Heighting

Light aircraft have also been used for airborne barometric heighting, but it is difficult to achieve the necessary accuracy without flying dangerously low. A helicopter is more manoeuvrable, and there is no risk of stalling at low speed. For our 250 foot contour interval no great precision was required in the heights and very old Wheeler aneroids were still employed. The original drill was to read two barometers in quick succession while flying over the point, but a light

plywood box was constructed in 1959 in which a 35 mm camera photographed two barometers, a thermometer, and a watch. The points for multiplex bridging were pre-selected in the office and marked on the photographs before the field season started. The evening before a sortie the points to be heighted were listed on a standard form, the most economical route linking the points was marked on the photographs with bearings and distances, and the photographs were placed in their right order in a special holder. The helicopter flew along the marked route, the surveyor identified the next point and the pilot either flew as low as possible over it or, if it were a hill top, flew close alongside it at ground level. At the point, the surveyor triggered the camera and recorded on the form merely the time and his estimated height above ground level. He immediately gave the pilot the bearing and distance to the next point and checked his course by map-reading on the photographs. Both pilot and surveyor need to have all their wits about them. In flat scrub country it is easy to lose the route and once lost it is often difficult to find it again.

The probable error of a height determined in this way was about 20 feet, which could probably be halved by using modern altimeters. No one claims that airborne altimetry is as accurate as placing the barometer on the ground, but it is very quick and is quite accurate enough for 250 foot contouring.

Traversing with Towers

Where a road passes through really flat country, a tellurometer traverse can be carried through on towers built close to the roadside. Towers require extra labour and tend to slow down progress, but compared with triangulating on towers, traversing is very simple. A tellurometer traverse can usually be put through on towers where triangulation would be prohibitively expensive.

An experienced crew can build towers very fast. On the traverse in 1958 between Mt. Isa and Tennant Creek along the Barkly Highway, we had two 75-foot and three 45-foot towers. A party of five men invariably erected even a 75-foot tower in a single day ; but another party was required for the equally laborious and less rewarding task of digging the holes for the foundations and another party to dismantle the towers after use. Thus rapid traversing with towers requires an extra crew of about fifteen men and even then it is an ambitious programme to maintain a rate of a station a day for very long.

Conclusion

The winter climate in northern Australia is delightful, the temperature seldom touching 90°F by day, coming down to about 70°F for an hour or two after sunset. Astronomical observations in Australia are very much pleasanter than astronomical observations in England. Inland it sometimes gets surprisingly cold by night : we had a frost in latitude 17° south at an altitude of only 1,000 feet. It is a good life ; the bush is clean and empty, with no people, few animals, no disease, and no need to boil or filter drinking water. It may not rain throughout the field season, and mobile survey parties sleep beneath the stars without tents. In the land where everyone is a " bwana " the surveyor may find himself cooking his own food, carrying loads, felling trees and digging holes, and all his friends will be doing the same. Native labour is not without its disadvantages and in Australia one is quite free from that well-known African feeling, that unless one sees to everything oneself, there is guaranteed to be a disaster. The party of five men who built our towers consisted of five survey assistants with no one to stand by and tell them what to do. They knew what to do, and did it best without supervision.

Mining Meetings at the Annual Conference

The Mining Surveyors Conference began on Thursday, 1st September, 1960, with an address by Dr. R. J. Adie, the Head of the Falkland Islands Dependencies Survey at the University of Birmingham, on the " Geological History of Antarctica". This afternoon meeting was attended by 70 members, with Mr. H. G. Davies, Chairman of the North Wales Branch Mining Sub-Committee, in the Chair. The vote of thanks to Dr. Adie for his most interesting address, which is to be published in a forthcoming issue of *The Chartered Surveyor*, was proposed by Mr. S. G. Lee and seconded by Mr. J. W. Ridyard.

On the afternoon of Friday, 2nd September, 1960, in somewhat squally weather conditions, a party of 74 members and their wives visited the Penrhyn slate quarries to inspect the workings.

The Penrhyn quarry is the biggest opencast quarry in the world. In appearance it resembles a great Roman amphitheatre, with 20 terraces rising one above the other in a sweeping concave curve.

From end to end the quarry is a mile and a quarter in length, and more than 1,200 feet deep. The slate veins themselves have a sloping depth of more than 2,000 feet, and the colours of the separate beds of green, purple, grey, blue and red slate can be distinguished clearly when looking at the great face of the quarry.

The use of Penrhyn slates for roofing dates back many hundreds of years. Both Conway and Caernarvon Castles, built in 1282–1284 are known to have been roofed originally with slate. Penrhyn slates supplied for the roof of St. Asaph Cathedral in the reign of Charles II, which were recently removed owing to the failure of the room timbers, were found to be in such good condition that they were used again.

During their visit members were fortunate in seeing, and hearing, a most impressive blasting operation in both the upper and main sections of the quarry. The effect resembled a corps artillery concentration, and the members had a wonderful view of the explosions from the main vantage points by the safety warning bell.

The parties were able to visit the dressing sheds where the various grades of slate were split, and were glad to meet again a number of the quarry-men from the Penrhyn Male-Voice Choir who had sung in the concert on Wednesday evening, 30th September.

After visiting the sections where the slate waste was crushed for the manufacture of very fine powder base material and a wide variety of precast building blocks, the visitors were entertained to an excellent tea at the Douglas Hotel, Bethesda, by courtesy of the Directors of the Quarry Company. The highlight of the tea was undoubtedly the reply to the expression of thanks by Mr. H. A. Frazer (Member of Council) by Master Richard Douglas-Pennant, aged 5, who closed the proceedings with the well-spoken comment " Thank you for coming".

On Saturday, the final day of the Conference, 75 members attended the Mining Surveyors meeting at which Mr. Kenneth Wardell (Fellow), M.I.MIN.E., presented a paper on " The

education and training of mining surveyors" prepared jointly by himself and Prof. E. L. J. Potts, M.SC. (Fellow), M.I.MIN.E. The paper was published on page 195 of *The Chartered Surveyor* for October, 1960, and a summary of the discussion which followed the paper is published below.

The Mining Surveyors Annual Luncheon was held in the dining room of University Hall and was attended by 160 members and their guests. Mr. O. F. Wooding (Member of Council) and Vice-Chairman of the Mining Surveyors Committee presided and the Official Guests included: Mr. J. D. Trustram Eve (President) and Mrs. Trustram Eve; Colonel G. G. H. Bolton, M.B.E., M.C. (Chairman, North Western Division, National Coal Board) and Mrs. Bolton; Mr. H. W. Barker (Deputy Chairman, North Western Division, National Coal Board) and Mrs. Barker; Mr. F. G. Glossop, O.B.E. (Production Director, North Western Division, National Coal Board) and Mrs. Glossop; Mr. R. H. Clough, O.B.E. (H.M. Divisional Inspector of Mines, North Western Division, Ministry of Power); Mr. J. C. Fletcher (President, Manchester Geological and Mining Society) and Mrs. Fletcher; Mr. N. H. Parfitt, O.B.E., M.C. (Chairman, North Wales Branch of the Institution) and Mrs. Parfitt; Professor Alois Barvir (Secretary-General, The International Federation of Surveyors); Mr. T. J. Sales (Marketing Director, North Western Division, National Coal Board) and Mrs. Sales; Mr. J. MacDonald (Staff Director, North Western Division, National Coal Board) and Mrs. MacDonald; Mr. J. A. Bullock (President, British Association of Colliery Management) and Mrs. Bullock.

The toast to the Mining Surveyors Section of the Institution was proposed by Mr. F. G. Glossop and was responded to by the President who also proposed the toast to the guests, to which Mr. R. H. Clough replied.

The Education and Training of Mining Surveyors

The mining surveyors held their closing meeting, as part of the Annual Conference at the University College of North Wales, Bangor, on the morning of 3rd September, 1960.

The discussion which followed the paper by Professor E. L. J. Potts and Mr. Kenneth Wardell is published below. The paper was published in the October issue of The Chartered Surveyor *at page* 195.

Mr. A. B. JAMES (Professional Associate) congratulated the authors for their courage in presenting such a controversial paper. It was, perhaps, a pity that they were not trying to be deliberately provocative, since they had suggested that the mining surveyor might be regarded as sub-professional. The revised syllabus for the professional examinations had been the subject of careful deliberation by a special sub-committee representative of the educational authorities, the mining industry, coal and metal interests, and the public services; and it had recognised the system of exemptions through the Statutory Certificate, which the authors condemned. It was doubtful whether the proposed educational standards really justified a full-time university course, in view of the limited opportunities available.

Mr. KENNETH WARDELL said that the paper was naturally open to misinterpretation. It was only those mining surveyors who regarded the Statutory Certificate as the ultimate end of all education who were at the sub-professional level. Those who continued beyond it did so in spite of the present system of education and must be admired for their initiative.

It was worth making a critical comparison with other professional Institutes in this matter of exemptions. The Institution of Electrical Engineers now required that all candidates for associate membership should pass their examinations; and the Higher National Certificate was no longer a basis for exemption. This was also becoming true of the Institutions of Civil and Mechanical Engineers. The mining surveyors must not disregard these developments.

The Statutory Certificate gave exemption from the First and Intermediate Examinations of the Institution; but this examination was quite clearly at a level of fact assimilation. Surely it would be more sensible for the candidate to start right at the beginning of a proper professional course, and use the First and Intermediate examinations as an exemption from the Statutory Certificate. The Review failed to lay enough emphasis on this. (See paragraph 90, Review of Educational Policy.)

Mr. James had said that there were not enough opportunities to justify a full-time course. Rather it should be said that if the educational basis of mining surveyors was widened, the opportunities would be correspondingly increased. Boys often asked what opportunities there were in the Commonwealth, and it was depressing to have to reply that their training and experience might be of some help, but their qualifications would be no help at all. But if these boys could obtain full qualifications, and the Institution were to do everything possible to publicise these, and gain their recognition abroad, then the opportunities would in fact be much wider.

Mr. JAMES gave an interesting description of the syllabus of the Survey School in Ghana at which he had lectured, and described in detail how the course was run. The significant point was that whereas the student in England took his certificate after four years of part-time instruction, the student in Ghana could take his certificate after only three years of full-time training. In comparison to this course, the Institution's syllabus, especially with regard to the mining surveying section, seemed rather narrow. Perhaps it should include topography, engineering, astronomy and mineralogy.

Mr. F. G. GLOSSOP (Professional Associate) said that he thought it unrealistic to try to ignore the Statutory Certificate as far as the Institution was concerned. The authors could have called for the abolition of the National Certificate, and could have recommended that the Institution should set all the papers. This might have been a better solution than a compromise, when the uncompromising fact remained that over 90 per cent. of mining surveyors were employed by the National Coal Board, and that the National Certificate was the prevailing qualification for them. Moreover, this Certificate took four or five years of study, and it was not unreasonable for a young man to expect some further benefits, even to the extent of membership of the Institution.

Enrolments in mining surveying courses, 1959–60, totalled 949 candidates. These men must be encouraged to further study, not necessarily by a 3-year course at University, but by offering them incentives to join the Institution. The authors' proposal would not attract them to the Institution, it would simply reduce the numbers in the Institution to such a level that the mining section would disappear altogether. Members of the old Institute of Mining Surveyors would have something to say about that.

Invidious comparisons with conditions in European countries served no useful purpose; the attitude of the authors of the paper did not seem as realistic as that of the Review of Educational Policy.

Mr. WARDELL insisted that what he and Professor Potts had proposed was consistently in sympathy with the Review of Educational Policy. They had simply put forward some salient points for discussion. It was easy for the older men to be complacent ; but such an attitude would not help the young men or the profession, and a rethinking was essential.

It had never been suggested that the Statutory Certificate should be ignored. It had its place for the technician. But the difference between the technician qualified by the Certificate and the fully professional man qualified in accordance with professional requirements must be emphasised as suggested in the Review of Educational Policy. A full-time education should be available for those who wished to go beyond the Certificate, and it would be more appropriate to make the First and Intermediate Examinations an exemption from the Certificate, rather than the other way round.

Of the 949 candidates for the Ordinary National and Higher National Certificates that Mr. Glossop mentioned, about 60 per cent. would never have considered going beyond the Statutory Certificate. All those were already lost to the profession. Members of the Institution had always encouraged young surveyors to become professional people but the National Coal Board were more interested in their trade union activities, and would not help make chartered surveyors out of technicians.

Professional surveyors in other sections had full-time education ; mining engineers had full-time education. It was implicit that the mining surveyor was inferior in intellect and in technical skill, to suggest that he did not deserve a full-time education also.

Grond, Rellensmann and Hoffman were mining surveyors who had made great contributions in the field of engineering. That was what surveyors in this country should be doing, and could, if their training was put on a broader basis.

Finally, support of the Review in principle was restated : the paper was merely an annex to this important document.

Mr. GLOSSOP (Professional Associate) said that he had feared that the Statutory qualification would almost become a disqualification ; and that all the 949 candidates would be lost to the profession.

Mr. D. OGILVIE (Professional Associate) asked if Mr. Wardell was thinking of the Common Market when he advocated a broader education for the surveyor.

Mr. WARDELL denied this, and said that all he wanted to do was to produce good surveyors, rather than to train performing fleas. Well-educated surveyors could work in all countries and would enhance the status of the profession.

Mr. N. E. ENGLAND (Fellow) asked whether Mr. Wardell was in favour of having surveyors on a professional and sub-professional level, bearing in mind that unity was strength ; and whether it was really necessary that all corporate members of the Institution should be academically trained.

Mr. WARDELL said that these questions were based on a fundamental fallacy ; we had two types of surveyor already, those who were members of the Institution and those who were not. His proposals would not increase this disparity—they were designed to alleviate it, by aligning the new educational policy with the Review, and by giving surveyors greater opportunities to become professionals. A better surveyor was bound to be a better servant of industry, and not only of the coal industry.

Mr. W. D. JENKINS (Professional Associate) said that the syllabus was very broad, and fitted for an engineer-surveyor in the mining industry, and even a valuer or estate agent. At the same time it was doubtful whether more than 5 per cent. of surveyors really wanted to go abroad ; most of them were well entrenched with the Coal Board, and had been trained the hard way, working in the pits, and knew their jobs just as well for not having had an advanced education. Every technician was a technologist in the mining industry. A detailed knowledge of one's own mine was the essential requirement, and the status of a surveyor was not so important as knowing his job.

Mr. WARDELL said that he did not want to be dogmatic about the proposed syllabus. The basic aim was to give young men greater opportunity by training them as mining surveyors, and not merely as coal-mining surveyors. It was doubtful whether knocking about in the pit from the age of 17 to 22 really made a good surveyor of a man, and it should be recognised that the academic method was just as valid a way of gaining qualifications.

Mr. W. W. G. SIMMONS (Professional Associate) said that he thought young surveyors were most concerned with buckling under, and earning their bread and butter ; and a four-year course at University would not help them do this. Moreover neither the Coal Board nor private firms were likely to regard a university course as a good investment.

Mr. WARDELL said that this attitude was contrary to the spirit of the Review. The course proposed was in no sense intended to be equivalent to the mining engineering degree, it was complementary to it, and was intended to give the surveyors a degree syllabus, as the electrical or mechanical engineers already enjoyed. The National Coal Board could not be forced to pay expenses, but it could be persuaded that it was worth-while. It was our duty as professional surveyors to do so.

Mr. SIMMONS referred to paragraph 39 of the Review which accepted that only a minority of students would proceed to full-time study.

Mr. WARDELL said that a surveyor with his Higher National Certificate should be able to go on to University and take a mining degree and thus acquaint himself with the fuller aspects of mining.

He claimed that this would enhance the capacity and efficiency of the surveyor at the professional level. The existence of two levels of professionalism had to be accepted. But Professor Potts and he disagreed strongly with Clause 39 of the Review of Educational Policy, or more particularly with Clause 38 (*d*) which referred to the mining surveying section, and assumed that few candidates would elect to take full-time courses.

A vote of thanks was then moved by Mr. N. E. England (Fellow) and seconded by Mr. J. W. Dean (Fellow).

PARLIAMENTARY AND GENERAL

Royal Commission on Local Government in Greater London, 1957-60

Greater London Council proposed to replace L.C.C.

"We are convinced that the choice before local government in Greater London is, in truth, to abdicate in favour of central government, or to reform so as to be equipped to deal with present-day problems." This perspicuous conclusion is made by the Royal Commission on Local Government in Greater London in their report which was published on 19th October, 1960.

Having considered the possible solutions presented to them, the Commission's unanimous recommendation is that the present two-tier structure of local government should be re-organised as follows :—

The primary unit of local government in the Greater London area should be the borough ; each borough covering a population of between 100,000 and 250,000 (*i.e.*, about 52 such boroughs would cover the Greater London area). Each borough would be responsible primarily for housing, health, roads and libraries, and have important functions in regard to education and planning.

An authority should be established covering the whole of the Greater London Area with an overall responsibility for education, planning, traffic, main roads, fire and ambulance services and refuse disposal and certain supplementary powers for housing, the provision of parks, entertainments, sewerage and sewage disposal and land drainage. The "Greater London Council" would be elected every three years on the basis of one member for each Parliamentary constituency in Greater London.

The Commission envisage that the Greater London area would approximately comprise the area now covered by the present Metropolitan Police District.

It is emphasised in the report that the Commission did not approach their task in any spirit of tidy-mindedness; where a system was working or being made to work their predilection was in favour of leaving it alone.

Town and Country Planning

One of the main tasks of the Commission was to examine the major functions of local government and their defects. In a chapter of the report devoted to town and country planning the Commission reject the view that it is the business of local planning authorities simply to implement government policy as laid down in the Minister's memorandum of 1947. "Town and country planning is, and always has been, an essential function of local government. To surrender even the initiation of policy to the central government would, we believe, fatally weaken local government."

The Commission consider that many of the presuppositions of the Greater London plan have not been realised and that there is an urgent need for reconsideration by some body with the duty to examine the review area as a whole and plan accordingly.

Under the scheme of reorganisation which the Commission propose, the Council for Greater London would become the local planning authority. The boroughs would, however, be responsible for the granting or refusing of planning applications except where the application involved a departure from the development plan, or is for the extraction of minerals. In addition the Minister would be given power to designate any particular important area and specify which types of application in such an area should be dealt with by the Council for Greater London.

One of the main reasons which influenced the Commission in concluding that the boroughs should hold the main responsibility for the granting and refusal of planning applications was that the present system of delegation in operation outside the Administrative County of London was "wasteful in time, energy and manpower."

The Commission consider that building regulations or bye-laws should be made by the Council for Greater London and administered by the boroughs ; it would be advantageous to the applicant if his application for permission under building regulations or bye-laws, and for planning permission, could be made simultaneously to the same authority.

Housing

Housing in the view of the Commission is essentially a local responsibility, but there are a number of problems which cannot be handled adequately by any of the existing local authorities. One of the most important of these problems is the assessment of the need and the making of long term plans for building for Londoners outside Greater London. The first step towards such an assessment would be to have some centralisation and standardisation of records—"at present there is a maze of overlapping housing lists, compiled on various different bases, from which nothing can be deduced accurately."

The Commission recommend that the duty to survey housing needs, to inspect houses and initiate preventive and curative action, and to make proposals for building houses

to meet the needs of the boroughs, whether they arise out of shortage of houses or out of slum clearance or redevelopment, should rest with the proposed Greater London boroughs.

The Greater London Council should be given powers under the Town Development Act, 1952, to make arrangements with other authorities outside the Greater London area for the building of houses for London's needs. The Council should also have powers to build in Greater London for the carrying out of development schemes which extend over more than one borough, or are too large for the resources of a single borough.

Traffic

While improved administrative machinery will not of itself solve London's traffic problem, the problem is insoluble under the present machinery. The Commission conclude that the proposed Council for Greater London must be responsible for traffic management throughout Greater London and for the construction, improvement, maintenance and lighting of all main roads.

The Vitality of London

"Residence in a very large city, in spite of its stress, brings specific benefits to the average family, since it offers the widest possible choice of educational facilities, jobs and social and cultural life. These benefits must be paid for in various ways, but they confer solid advantages, distinguishable from the intangible attractions of life 'at the centre of things'." If London remains true to its historic character, it will continue to attract and to try to expand. The fundamental question is not "How can the growth of London be stopped?" but "How can London's abounding vitality be guided and directed for the general good through the medium of self-government?"

The Building Societies Act, 1960

By DONALD E. TAYLOR (Fellow), F.A.I.

The Act came into force on 1st October, 1960, though different portions of it will take effect at different times, some of which are to be announced later.

Legislation concerning building societies commenced with the Act of 1836 (now of little importance) and was carried on in the Acts of 1874 ("the Principal Act"), 1877, 1894 and 1939; these Acts are not repealed though considerable amendments are made in some of them, and it can only be hoped that a consolidating Act will not be long delayed. This latest Act affects a very large number of members who are concerned with the sale and valuation of houses and an appreciable number of members who are concerned also as directors of building societies.

Members Acting as Valuers and Estate Agents

Under the Act of 1939 it was laid down that the adequacy of any security was to be assessed by a competent and prudent person experienced in the matters relevant to the determination of the value of the security. This was a little ambiguous as it seemed to make for some confusion between the two separate matters of valuation and the wider aspect of the adequacy of a security. Section 14 of the Act of 1960 distinguishes quite clearly between these two matters. Henceforward the adequacy of any security is to be assessed either by a director or other officer of the building society who is competent to make the assessment and who is to have available a report as to the value of, and any matter likely to affect the value of, the property in question being a written report prepared and signed by a competent and prudent person who is experienced in the matters relevant to the determination of the value. The section also provides that a director or manager or secretary of a society is disqualified from reporting on the value of a security except that for ten years after the commencement of the Act such a person may report if he is authorised to do so by special resolution at every subsequent annual general meeting beginning with that to be held after the end of 1960.

This part of the section as now enacted is different from the wording introduced in the original Bill which caused a great deal of controversy. It is the case that many valuers are directors of building societies and they have on their own account or through their firms carried out valuations, in some cases extending through family connections for generations, and with no apparent dissatisfaction. Though it is undoubtedly preferable that valuations should normally be prepared by independent persons, most building societies have benefited from the particular association and knowledge of its valuer directors. The section as originally proposed operated harshly to sever these connections and exclude all valuer directors from preparing reports upon property, but now this is happily averted for a time providing the necessary special resolutions are passed in the form required by the Act in section 29.

A particular matter to be noted is that valuations and reports must be prepared and signed by a competent and prudent person. This reference is clearly to the individual and will preclude reports being sent out in the names of firms as is usual. It will make no difference in the case of staff employed by a building society who no doubt sign their reports individually nor in the case of self-employed valuers acting on their own account. However, in the case of the larger firms where reports are prepared by a partner or a member of the staff it will now be essential for him to sign personally, though many building societies will probably require that the signature of the firm be included in addition. The fact that a partner is a director of a building society will not disqualify his other partners from carrying out valuations for that society.

The section further provides that a report as to the value of any property shall not be prepared by any person who has received commission from a society for introducing the applicant for the advance; or by the vendor of the property and any other person entitled to receive in whole or in part the proceeds of sale, which includes a person receiving a commission or gift for introducing the parties to the transaction, that is to say, the estate agent acting for the vendor, and under certain circumstances it may also include the agent or surveyor acting for the purchaser.

The other matter which may concern members is the inclusion within the definition of "special advance" of any loan to a person exceeding £5,000. Section 1 imposes restrictions upon building societies as to the amount of money that can be advanced each year on "special advances" and it is likely this will have the effect of curtailing the amount of money available for the classes of borrower to be included within this term. This in consequence might have some effect on the value of property concerned, including private houses.

Members as Directors of Building Societies

One of the most important parts of the Act is contained in sections 1 and 2, which are concerned with restrictions on the type of mortgage advances that can be made in future. These are effected by the limitation of a " special advance," which is an advance of any amount to a body corporate, or an advance over £5,000 to a person other than a body corporate, or an advance of any amount to a person other than a body corporate which brings to over £5,000 the total debt to the society of the person to whom the advance is made. At the end of each financial year the society has to calculate the proportion of its " special advances " in relation to its total advances in order to determine how much during the following financial year may be advanced on " special advances."

The intention as stated by the Chancellor of the Exchequer is " to ensure that building societies concentrate their main efforts on their traditional and proper business which is advancing money on the security of owner-occupied houses."

It is unfortunate that the limit of £5,000 for loans to private persons should be kept to this sum which was originally introduced in the Act of 1894 and it was pointed out during the passage of the Bill through Parliament that having regard to the fall in the value of money a comparable figure to-day should be very much higher. It is certainly the case in London and also in many other parts of the country that the value of houses on which building societies would quite normally lend money has so greatly increased that a loan of something over £5,000 cannot be considered unreasonable or unusual.

Fortunately the Chief Registrar of Friendly Societies has the power to increase the £5,000 limit and it is to be hoped that he will take an early opportunity of doing so to avoid any hardship that might otherwise be created for the class of vendor and purchaser and building society concerned with this type of property.

The Chief Registrar may authorise the limits to be exceeded in certain cases including that of houses and flats available for letting. There is relief available for short-term bridging finance which will permit help being given to a borrower buying a house pending sale of another.

Miscellaneous Provisions

There are new provisions which make it more difficult for new societies to be set up and impose strong control over small societies being changed in form or character of operations, including advertising and the raising of money.

Considerable additional powers are given to the Registrar to investigate the affairs of societies which should enable him to act promptly and effectively in the case of unsound societies, and he may in certain circumstances authorise societies to help smaller ones that might be in difficulties.

The forms of account which have to be produced at the end of each year are to be changed and will bring societies closer in line with the Companies Act, 1948.

Particular reference is made to the keeping of proper books of account and system of office management ; the appointment duties and qualification of auditors ; the making of a report by the directors ; and also of an annual return, the form of which is to be laid down in regulations.

Investment of Surplus Funds

Section 11 deals with new provisions for the investment of surplus funds which in future can only be in securities to be prescribed by the Registrar in regulations yet to be issued. It is understood that these will provide for the first 7½ per cent. of a society's total assets to be in cash or other liquid form or Government securities with a maximum life of five years ; a further 7½ per cent. may be in securities of up to 15 years' life and thereafter 25 year securities can be considered, but investments in non-dated stock or equities are apparently not to be allowed. Surplus funds may be held in a bank providing it is one to be designated in due course. In this connection the section refers to a bank in the singular, which could seem to be unduly restrictive.

Conclusions

The Act extends to 77 sections and six schedules which indicates a considerable volume of new law which has made many changes in the previous statutes. The general effect is to bring up to date to meet modern requirements legislation dating back for over a century and to ptotect investors against the risk of dishonest or incompetent employment of their savings, though it may be queried as to whether some of the requirements do not hamper the efforts of directors who suffer the prospect of severe penalties for non-compliance with the Act.

It is recommended that members who are directors of societies should insist on proper legal advice as to the duties now imposed on them.

Caravan Sites and Control of Development Act, 1960

By K. E. B. GLENNY, O.B.E. (Fellow)

BACKGROUND

Official recognition of the need for considering the place of caravans in the social life of the country was given when Mr. Henry Brooke, the Minister of Housing and Local Government, informed the House of Commons on 25th November, 1958, that he had decided to set on foot an investigation into the nature and extent of the problems which arose in connection with caravans used as residential accommodation and had asked Sir Arton Wilson to conduct the investigation.

The result was published in the form of a White Paper on 5th November, 1959, and upon the basis of the information thus provided, legislation was decided upon and the Caravan Sites and Control of Development Bill was published on 9th March, 1960, a date which, as will appear later, has considerable significance.

The extent of caravan use is indicated by Sir Arton's conclusions that there were then about 60,000 caravan homes in England and Wales occupied by about 150,000 people. Some 38,000 were on sites for which specific planning permission had been given ; about 12,000 enjoyed " existing use " rights and about 10,000 were on sites in contravention of town and country planning provisions. These numbers must have steadily increased since the report was published.

It is against this background that chartered surveyors have now to take account of the Act which received the Royal Assent on 29th July last and came into effect on 29th August, 1960.

OBJECTS OF THE ACT

Caravan Sites (Part I)

The main purpose of the Act is broadly to bring under the control of local authorities all sites occupied by caravans intended for human habitation. All sites, both existing and new, will in future require a site licence ; existing sites will form the subject of a review by the local authorities, in conjunction with the planning authorities, and the local authorities are given power themselves to set up their own sites.

General Control of Development (Part II)

In the concentration of thought upon caravans it is quite possible that the importance of Part II, which covers the " Control of Development " part of the title, may be overlooked.

It appears at first glance somewhat illogical that amending legislation on planning affecting all types of land should be introduced in a statute mainly concerned, and in its first part solely, with caravans, but caravan sites are particularly open to enforcement notices and legislation for them has produced these consequential amendments.

It is considered advisable to draw particular attention to the general character of Part II which alters very considerably the procedure of appeal with regard to enforcement notices.

CARAVAN SITES. PART I OF THE ACT

From 29th August, 1960, a system of licensing of caravan sites has been in operation and since that date it has been an offence (except for an " existing site " until 28th October, 1960), for an occupier of land to cause or permit any part of the land to be used as a caravan site unless he is the holder of a current " site licence " for the land so used.

Since the penalty for the first offence is up to £100 and for subsequent offences up to £250, surveyors concerned with sites used for caravans at the present time should speedily establish whether or not the sites are within the exemptions and if they are not, make an application for a site licence.

Interpretation of a few terms used in the Act is essential to a quick understanding of its provisions and furthermore a clear distinction must be retained between exempted sites, " existing sites " and new sites. In the following paragraphs an endeavour is made to simplify these points.

Definitions

" *Occupier* " means the person entitled by ownership or tenancy to possession of the land or who would be so entitled but for the rights of another under a licence granted for the land. When, however, the site is not more than 400 square yards in extent and is let for the purpose of a caravan site, the grantor of the tenancy is presumed to be the occupier. (*Section* 1 (3).)

" *Caravan* " means any structure designed or adapted for human habitation which is capable of being moved from one place to another (whether by being towed or by being transported on a motor vehicle or trailer) and any motor vehicle so designed or adapted, but does not include (*Section* 29 (1).) :—

(*a*) railway rolling stock for the time being on rails forming part of a railway system, or

(*b*) any tent.

" *Caravan Site* " means

1. the land on which a caravan is, in fact, stationed for the purposes of human habitation, and

2. land which is used in conjunction with (1). (Section 1 (4).)

" *Local Authority* " means the council of a borough or urban or rural district and the Council of the Isles of Scilly (not the County Council). (*Section* 29 (1).)

" *Site Licence* " is a licence issued by a local authority authorising the use of land as a caravan site. (*Section* 1 (1).)

Exemptions from Site Licensing

1. Land within the curtilage of a dwelling-house where its use as a caravan site is incidental to the enjoyment as such of the dwelling-house.

2. Land used as a site by a person travelling with a caravan who brings the caravan on to the land for a period which includes not more than two nights,

(*a*) if during that period there is no other caravan on the land or adjoining land occupied with it, and

(*b*) if in the previous 12 months no caravan has been stationed on the land or the adjoining land for more than 28 days.

(This exemption may, in certain cases, be withdrawn by the Minister.)

3. A caravan site which, together with any adjoining unbuilt-on land in the same occupation, is not less than five acres,

(*a*) if in the previous 12 months a caravan has not been stationed on the land for more than 28 days, and

(*b*) if in that period not more than three caravans at any one time have been stationed on the land.

(The Minister may, by statutory instrument, reduce the acreage or the period of time).

4. Land which is occupied by an organisation which holds a certificate of exemption (*i.e.*, any organisation which the Minister is satisfied includes in its objects the encouragement or promotion of recreational activities) if the occupation is for purposes of recreation and is under the supervision of the organisation.

Certificates of exemption have already been issued to The Caravan Club and The Camping Club of Great Britain and Ireland.

5. Sites approved by such an organisation and certified for use by its members for recreation if not more than five caravans are stationed at a time. This certificate is issued to the occupier of the land and particulars of it have to be sent to the Minister. It has to specify the period of its validity which cannot exceed a year.

6. Land used under the supervision of an exempted organisation for the purpose of a meeting of its members lasting not more than five days.

7. Agricultural land used for the accommodation during a particular season of a person or persons employed on the land in the same occupation.

8. Land similarly used for the accommodation of persons employed on the land in the same occupation for the purposes of forestry.

9. Land forming part of or adjoining land on which building or engineering operations are being carried out if the use is for the accommodation of persons employed in these operations.

10. Land used by a travelling showman who is a member of an organisation of travelling showmen which holds a certificate and who is travelling for the purposes of his business or has taken up winter quarters on the land with his equipment between the beginning of October and the end of the following March.

(A certificate has been issued to the Showmen's Guild of Great Britain).

11. Land used by the local authority as a caravan site.

Existing Sites

An " existing site " is :—

1. Land in use as a caravan site at 29th August, 1960, and which was also so used on 9th March, 1960 (the date of the introduction of the Bill). (*Section* 13.)

2. Land first used as a caravan site after 9th March, 1960, and so used on 29th August, 1960, and a planning permission otherwise than by a development order for that use was in force on 29th August, 1960. (*Section* 13.)

3. Land whether in such use or not at 29th August, 1960, for which planning permission for that purpose is not required by virtue of section 12 (5) of the 1947 Act (which is concerned with a resumption of the 1947 Act uses), provided that it has been so used at least once during the two years ending on the 9th March, 1960. (*Section* 21.)

Conditions relating to Existing Sites

The occupier of an existing site, having had until 28th October, 1960, to make application for a licence, it is no offence after that date if by that date application has been made and the licence has not yet been issued. (*Section* 14.)

In the case of a site taken into use after 9th March, 1960, and permission for its use flowed from a development order, the occupier had until 28th November (*i.e.*, three months from the commencement of the Act) in which to make application. (*Section* 15.)

While awaiting a licence an occupier must restrict use of the land to :—

(*a*) the number of caravans stationed on 29th August, or

(*b*) the number of caravans to which a planning permission limits the site, or

(*c*) the number permitted by a licence under section 269 of the Public Health Act or any local Act.

An existing site which comes within the terms of exemption of section 2 of the first schedule does not require a licence. (*Section* 16 (4).)

Sites which already have planning permission are entitled to a site licence within two months of the application or within six weeks from the grant of a pending planning application.

In the case of sites which have not a planning permission the local authority have six months to consider the applications and it is the intention that during that time they shall, in conjunction with the local planning authority, carry out a review of all existing caravan site provision and of all potential sites with the aim of determining the future needs of their locality.

The result of this review will determine the action of the planning authority on applications and they may, in relation to each application, adopt one of four courses :—

(1) Accept the existing position and do nothing, in which case at the end of six months there will be a deemed unconditional planning permission and a licence is issuable.

(2) Accept the existing position, give planning permission within the six months and a licence will be issuable.

(3) Make a discontinuance order under section 26 of the 1947 Act, which is subject to confirmation by the Minister, and upon confirmation, compensation will be claimable.

(4) Serve an enforcement notice under section 23 of the 1947 Act and the new procedure of appeal under Part II of the present Act will arise but no compensation will be payable. (*Section* 17.)

Existing site with short-term planning permission

If an existing site enjoys a planning permission which is due to expire within six months of the site application, the remaining period is ignored for the purposes of a licence application and a new permission is required, and the enforcement notice can be served within six months of the expiry of the current planning permission. (*Section* 18.)

Reduction of excessive numbers on existing site

If the standards laid down by the Minister under section 5 (9) are such that the local authority considers that the number of caravans on the site is excessive and that to secure a reduction may involve displacing persons already resident, it may attach a condition to the licence requiring that where a caravan is vacated or taken off the land no reoccupation or replacement shall be permitted ; or it may attach other conditions to secure a progressive reduction to the greatest number which the local authority considers proper, provided it is satisfied that there is suitable alternative accommodation for persons so displaced.

To secure termination of an existing site

In the case of an existing site for which, in the opinion of the planning authority, permission should not be granted *but* for the fact that existing residents on the site need time to secure other accommodation, a condition may be imposed to secure its eventual termination, subject to various rights of appeal. (*Section* 20.)

Caravans on Commons

Power is given to a rural district council, in certain circumstances, to prohibit absolutely, or subject to conditions, the stationing of caravans on a common. (*Section* 23.)

Site Licences for all Sites—Issue and Conditions

(1) The application has to be made by the occupier to the local authority for the area in which the land is situated. (*Section* 3 (1).)

(2) It must be in writing and specify the land for which application is made and either at the time of application or subsequently the applicant must give certain particulars and in the form required by the *Caravan Sites (Licence Applications) Order*, 1960 (S.I. 1960, No. 1474). (*Section* 3 (2).)

(3) The licence so applied for can be issued only if, at the time of issue, the applicant has a valid planning permission for the use of the land for that purpose. (*Section* 3 (3).)

(4) If at the date when the particulars in (2) above are given, the planning permission is in force, the local authority must issue a licence within two months of that date or such longer time as the parties agree. (*Section* 3 (4).)

If at that date there is no permission in force, the licence must be issued within six weeks of the grant of the permission, or such longer time as may be agreed. (*Section* 3 (5).)

(5) If, however, it is within the knowledge of the local authority that a previous site licence under the Act has been revoked within the previous three years (see "Revocation" later), they are precluded from issuing a licence. (*Section* 3 (6).)

(6) The site licence is granted without limit of time except where the planning permission itself is limited in time and then the licence shall expire, and shall so state, with the planning permission. (*Section* 4 (1).)

(7) If the planning permission on appeal to the Minister under section 16 of the 1947 Act is varied by him, the local authority must similarly vary the site licence to accord with the planning permission. (Section 4 (2).)

(8) Conditions may be imposed by the local authority " in the interests of persons dwelling on the land in caravans, or of any other class of persons, or of the public at large," and in particular these may :—

(1) Restrict the occasions on which caravans are stationed, or the total number stationed at any one time. (*Section* 5 (1).)

(2) Control by size, state of repair (but not by materials of construction) or by any other feature the type of caravan to be stationed. (*Sections* 5 (1) and 5 (2).)

(3) Regulate the positions in which the caravans are to be stationed, and prohibit, restrict or regulate the simultaneous presence of structures and vehicles of any kind and of tents. (*Section* 5 (1).)

(4) Secure the preservation or enhancement of amenities of the land. (*Section* 5 (1).)

(5) Provide for preventive and detective measures against fire and for proper fire-fighting means. (*Section* 5 (1).)

(6) Provide for adequate sanitary facilities and such other facilities, services or equipment as may be specified for the use of persons dwelling in the caravans and for the maintenance of such facilities and equipment. (*Section* 5 (1).)

(7) Unless the licence is restricted to three or less caravans, a copy of the site licence must be displayed on the land in a conspicuous position. (*Section* 5 (3).)

(8) If the site licence imposes conditions requiring works on the land (which include planting of trees or shrubs and amenity works) the local authority may similarly restrict the bringing of caravans onto the land until they have certified their satisfaction with the works. (*Section* 5 (4).)

(9) It is expressly provided that conditions imposed against the holder which he may not " as of right " be able to carry out, are nevertheless valid. (*Section* 5 (5).)

(10) If the local authority, in appropriate circumstances, fails within the specified time to issue a licence, it is no offence by the occupier, if after the expiry of the time, he is in occupation. (*Section* 6.)

Appeals against conditions

Any applicant aggrieved by any condition imposed (other than one requiring the licence to be exhibited on the land) may apply to the magistrates' court for the area in which the land is situated within 28 days of the date of issue of the licence.

The court must have regard in particular to standards specified by the Minister (Section 5 (6)) but can otherwise vary or cancel the condition if it considers it " unduly burdensome." (*Section* 7 (1).)

A condition requiring the carrying out of works on the land has no effect during the period of 28 days or during the period when the appeal is pending. (*Section* 7 (2).)

Subsequent variation of conditions

At any time the conditions may be varied or cancelled or added to by the local authority after giving the holder of the licence " an opportunity of making representations."

There is a similar right of appeal to the magistrates' court, the same limitation on the carrying out of works and the same procedure generally. (*Section* 8 (1) *and* (2).)

Breach of Conditions

If the holder of a licence fails to comply with any current condition, he is guilty of an offence and liable on summary conviction, to a fine of £100 for the first offence and for any subsequent offences £250 each. (*Section* 9 (1).)

Revocation of licence

If such a person convicted has had two or more previous convictions, the court may, if the local authority make an application, make an order revoking the licence, to which there are certain normal rights of appeal. (*Section* 9 (2).)

Failure to carry out works

If the holder fails to carry out a condition requiring the carrying out of works to the satisfaction of the local authority, the authority may carry out the works itself and recover the cost as a contract debt. (*Section* 9 (3).)

Transfer and surrender of licences

When the holder of a licence ceases to be the occupier he may, with the consent of the local authority, transfer the licence to the new occupier. The licence is then endorsed with the new name and with the agreed date of transfer.

A person becoming by operation of law an occupier, is entitled to have his name endorsed on the licence from the effective date. (*Section* 10 (1).)

Model Standards

The Minister has power from time to time to specify model standards regarding layout, facilities, services and equipment and these must be borne in mind by the licensing authority.

These standards have, in fact, been specified and issued as " The Model Standards." (*Section* 5 (6).)

Local Authority's Power to Provide Sites and to Acquire Land Compulsorily

Power is given to a local authority to provide within their area sites where caravans may be brought for holidays or other temporary purposes or for permanent residence and to manage the sites or lease them to some other person.

In this connection local authority includes the County Council, and for obvious reasons a joint planning board for an area enclosing a National Park.

This power alone is also exercisable in the County of London and the local authority there includes the Metropolitan Borough Councils.

Where the local authority consider :—

(1) that a caravan site or an additional site is required in their area, or

(2) that an existing site should, in the interests of the users of the caravans, be taken over it may acquire land, or any interest in it, compulsorily.

There is also authority to provide services and facilities and to make reasonable charges, but not to provide caravans. (*Section 24*)

Application

This part of the Act applies also to Scotland, subject to the consequential amendments set out in section 32. Except where otherwise stated section 32 does not apply to the administrative County of London (the L.C.C. area). (*Section* 31.)

Register and Inspection of Sites

A register of site licences and of all endorsements must be kept by the local authority and must be open for inspection by the public at all reasonable times.

The Future

In his advice to local authorities the Minister has recognised that, caravan sites being a feature of our national life, the powers given to local authorities must be used in a positive way, *i.e.*, so as to secure that all sites, whether residential or holiday, are properly equipped and run, that planning

permission is not withheld on principle, but only where there is some definite planning objection, and that when once permission is given it should generally be on a long or permanent basis.

Surveyors would be well advised to familiarise themselves with Ministry of Housing Circular 42/60, dated 19th August, 1960, as it gives a very clear indication of the spirit in which it is intended that the Act shall be administered.

GENERAL CONTROL OF DEVELOPMENT. PART II OF THE ACT

Enforcement Notice Appeal Procedure

The procedure for the service of enforcement notices under section 23 of the 1947 Act remains unaltered but a person receiving such a notice and desiring to object to it, has now a quite different remedy open to him. (*Section* 33.)

Within the time stated on the notice he may appeal against it to the Minister and on any of the following grounds :—

(1) that permission ought to be given under Part III of the Act for the development in force, or

(2) that permission has already been so granted, or

(3) that no permission was required under Part III or that any conditions or limitations imposed by the permission have been complied with, or

(4) that what is assumed to be development is not development under Part III, or

(5) that the enforcement notice was not served within the four years as required by section 23, or

(6) that the requirements of the notice exceed what is necessary for the restoration of the land or to comply with conditions, or

(7) that the period specified for enforcement is inadequate. (*Section* 33 (1).)

An appeal to the Minister is treated as if it were an application " called in " by the Minister under section 15 of the 1947 Act, although sections 36 and 37 of the 1959 Act (which require advertisement and the service of certain notices) do not apply. (*Section* 33 (2).)

The enforcement notice has no effect while an appeal is under consideration. (*Section* 33 (3).)

An appeal has to be in written form and setting out the grounds relied upon ; and on an appeal the Minister must, if either the appellant or the local authority require it, give each an opportunity to be heard by a person appointed by him. (*Section* 33 (4).)

The Minister has power to correct minor informalities and defects in the notice. (*Section* 33 (5).)

The costs of the appeal are governed by section 290 (5) of the Local Government Act, 1933. (*Section* 33 (7).)

The Minister's decision may be the subject of appeal to the High Court on a point of law or the Minister can be required to state his decision for the opinion of the Court, and similarly he may state a case on any point arising during the hearing. (*Section* 34.)

If, after the service of a notice, planning permission is given, the notice ceases to have effect. This applies whether the notice was served before or after the passing of the Act but not to a permission granted before the Act. (*Section* 38.)

Even if the terms of a notice are complied with, the notice remains in force, and resumption of contravening uses or reinstatement of buildings of works removed in compliance is an offence unless, meanwhile, planning permission has been obtained. (*Section* 40.)

Part II does not apply to Scotland.

Legal Notes

By H. F. BIDDER (Associate)

1. VERBAL CONTRACT FOR SALE OF CAR

Vendor deceived as to identity of purchaser

If A verbally contracts with B in the belief that B is C, what happens to the contract ? This question occupied the attention of the Court of Appeal for five days in the recent case of *Ingram* v. *Little* ([1960] 3 All E.R. 332), and in the end was decided by a majority, on the facts of the particular case.

Using the above symbols, A was the owner of a car, which she advertised for sale ; B was a crook ; and C was a reputable person in so far as he had his name and address in the telephone book.

B called on A, in answer to the advertisement, and agreed on a price. When A required payment in cash, B said that he was C, giving C's name and address, and urged A to accept a cheque. During the discussion on this, A's sister slipped out and looked at the telephone directory in a Post Office, where she found the name and address given by B. On her return with this information A decided to accept the cheque, and B went off with the car, which he promptly sold to X. This was an action by A to recover the car or its value from X. The question to be decided was whether, in the circumstances, B had acquired the car under a valid verbal contract.

It is a presumption of law that an offer made verbally to a person present can be accepted by him, and thereupon becomes a valid contract. This presumption can be rebutted by showing that the offer was not in fact made to the person physically present but to someone the offerer believed to be present, and also that the offeree knew this. Two of the members of the Court thought that these conditions were satisfied. *Devlin, L.J.* considered that the identity of B was not material to the offer made by A.

Sellers, L.J. said the case turned solely on whether B entered into a contract giving him a title to the car, which would subsist until avoided on the undoubted fraud being discovered. If B had paid cash for the car, there would have been a concluded and unimpeachable transaction in which the identity and financial stability of the buyer would have been of no moment. But in making her offer to sell the car not for cash but for a cheque, A was under the belief that she was dealing with C who, she had reason to believe, was a man of substance and standing. B knew this, and the offer was therefore incapable of acceptance by B. There was no contract.

Pearce, L.J. said the subject was a difficult one. If A was in fact intending to deal with the person physically present, who had fraudulently endowed himself with the attributes of some other identity, there was a valid, but voidable, contract and the property passed. If A was intending only to deal with that other identity, there was no contract, and the property did not pass. The mere fact that an offerer is dealing with a person bearing an alias or false attributes does not create a mistake that will prevent the formation of a contract : there is then no other identity for which the

offeree is mistaken. "An apparent contract made orally *inter praesentes* raises peculiar difficulties. The offer is apparently addressed to the physical person present. *Prima facie* he, by whatever name he is called, is the person to whom the offer is made. Yet, clearly, though difficult it is not impossible to rebut the presumption that the offer can be accepted by the person to whom it is physically addressed. To take two extreme instances: if a man orally commissions a picture from some unknown painter who had passed himself off . . . as a famous painter, the impostor could not accept the offer . . . the nature of the contract makes it obvious that identity was of vital importance to the offerer. At the other end of the scale, if a shopkeeper sells goods in a normal cash transaction to a man who represents himself as being a well-known figure, the transaction will normally be valid, for the shopkeeper was ready to sell goods for cash to the world at large. Thus the nature of the proposed contract must have a strong bearing on the question whether the intention of the offerer (as understood by the offeree) was to make his offer to some other particular identity rather than to the physical person to whom it was orally offered." When B started to try to get A to accept his cheque, new negotiations of a different kind began, concerned with a credit sale in which both parties knew that the identity of the purchaser was of the utmost importance. A was not prepared to sell on credit to the man in her drawing-room, though he represented himself to be a man of substance. Only when she had learned that the name and address given by B were in the directory, did she agree to sell on credit. *Slade, J.* [the judge in the trial of the action] had found that A's offer to accept a cheque for the price was made solely to, and could be accepted only by C. This was a borderline case, but he (*Pearce, L.J.*) was not persuaded that on the evidence *Slade, J.* should have found otherwise.

The court, he continued, was naturally reluctant to accept the argument that there had been a mistake in such a case as this, since it created hardship on subsequent *bona fide* purchasers. A's unguarded transaction had caused loss to another, and unfortunately, when the contract is void at common law, the court cannot by its equitable powers produce a fairer result. However, the subsequent purchasers were no more wise or careful than A.

As already indicated, *Devlin, L.J.* dissented because he was not satisfied that the identity of B was material to the offer (to accept a cheque for the price) made by A.

2. UNLIGHTED VEHICLE ON HIGHWAY AT NIGHT

In the case of *Parish* v. *Judd* ([1960] All E.R. 33) the liability of the person responsible for an unlighted vehicle on a highway at night was considered, both from the point of view of nuisance, and of negligence. Nuisance is founded on the deprivation of a right, negligence on the omission of a duty to take care.

The facts of the case were that the lighting system of a car being driven on a dark night suddenly failed. The car was taken in tow by a lorry. After a time the lorry driver stopped to examine the towing gear. He chose a spot where the unlighted car behind him was near a street lamp. At the back of the car were two efficient reflectors. Lorry and car were close to the near kerb. Another car came along, going in the same direction, and the driver saw the lorry, but not the car until it was within a few feet. He then braked, skidded and crashed into it. One of the occupants was injured, and now brought this action for damages.

Edmund Davies, J., in his judgment first stated the law as he understood it. "The mere fact that an unlighted vehicle is found at night on a road is not sufficient to constitute a nuisance. First it must be shown, not merely that the vehicle was an obstruction on the road, but that it was a danger on the road. Secondly, in order that it may be an actionable nuisance, it must be shown either that the vehicle became unlighted by reason of some fault on the part of the person responsible for the vehicle, or that, assuming that it initially became unlit without any fault on the part of the person responsible for the car, nevertheless he thereafter was guilty of some fault." He cited a passage in the judgment of *Lord Greene, M.R.*, in *Maitland* v. *R. T. & J. Raisbeck & Hewitt Ltd.* ([1944] K.B. 689) :

> "Every person who uses the highway has to exercise due and proper care. He has a right to use the highway and, if something happens to him which in fact causes an obstruction in the highway, but is in no way referable to his fault, it is quite impossible, in my view, to say that *ipso facto* and immediately a nuisance is created. It would obviously be created if he allowed it to be an obstruction for an unreasonable time, or in unreasonable circumstances ; but the mere fact that it has become an obstruction cannot turn it into a nuisance."

Examining the evidence, the judge held that the driver of the moving car was guilty of negligence : he had failed to keep a proper look-out, and take appropriate steps such as reducing speed, long before he did. As to the question whether the unlighted car amounted to a nuisance as presenting a dangerous obstruction, he came to the conclusion that the place where that car and the lorry were standing was sufficiently illuminated to present no danger to road users.

In regard to negligence on the part of the person responsible for the unlighted car in having a lighting mechanism that suddenly failed, that did not arise, since the car was left in a position where the street lamp afforded ample warning to anyone keeping even a casual look-out. But as the matter had been raised, he would express his views. The car had been well maintained, and expert evidence was to the effect that the most likely cause of the failure was a break in the earth wire of the battery. "Having said at the outset that the unlit condition of a vehicle on the road raises a presumption of negligence against the car owner, I am satisfied in this case that that presumption would, on the evidence, have been dispersed, and that the defendant has shown a reasonable discharge of his duty, and has acted in the manner in which a reasonably prudent owner of a motor vehicle could be expected to act, not the manner in which the most highly skilled mechanic would act. Accordingly I see no ground for holding in this case that the initial failure of the lights can be attributed to any negligent omission or commission by the defendant."

Statutory Instruments

Building Societies Regulations

The Building Societies (*Accounts*) *Regulations*, 1960 S.I. 1960, No. 1826, 4*d.* net). The directors of every building society are required under the Building Societies Act, 1960, to lay before their society at the annual general meeting a revenue and appropriation account and a balance sheet; and these two documents are also required for certain other purposes under that Act. These new regulations prescribe their form, and the particulars to be contained in them.

The Building Societies (*Annual Return and Auditors' Report*) *Regulations*, 1960 (S.I. 1960, No. 1827, 9*d.* net), prescribe the particulars to be contained in the annual returns as to their affairs in the previous financial year, which building societies are required to make to the Chief Registrar of Friendly Societies under the Building Societies Act, 1960, and the form of the returns.

The regulations also provide that the auditors, in their report on the annual return under section 51 of that Act, need not deal with certain specified matters.

Town and Country Planning

The Town and Country Planning (*Building Preservation Order*) (*Amendment*) *Regulations*, 1960 (S.I. 1960, No. 1539, 2*d.* net) amend the Town and Country Planning (Building Preservation) Regulations, 1948, by removing the requirement to conform to a prescribed form of order.

The amendment of the provisions of the Town and Country Planning Act, 1947, relating to the enforcement of planning control, by Part II of the Caravan Sites and Control of Development Act, 1960, invalidated the relevant parts of the prescribed form as from 29th August, 1960. Orders made in the prescribed form before that date, whether confirmed by the Minister or awaiting confirmation, are not affected by the amendment as section 48 (2) of the 1960 Act applies. Orders made on or after 29th August, 1960, must, however, have provisions relating to enforcement upon the basis of Part II of that Act.

No new form of order has been prescribed but a model form has been prepared and is available from the Ministry.

The Town and Country Planning (*Use Classes*) (*Amendment No. 2*) *Order*, 1960 (S.I. 1960, No. 1761, 3*d.* net) excludes betting offices licensed under the Betting and Gaming Act, 1960, from being "shops" or "offices" for the purposes of the Town and Country Planning (Use Classes) Order, 1950. Minor amendments and additions are made in the special industrial groups and the phraseology of Class XVI is altered so as to accord with modern legislation as to mental health and probation and supervision orders.

Acquisition of Land

The Acquisition of Land (*Rate of Interest on Entry*) *Regulations*, 1960 (S.I. 1960, No. 1311, 3*d.* net) increase from 5½ per cent. to 6½ per cent. per annum the rate of interest payable where entry is made, before payment of compensation, on land in England and Wales which is being purchased compulsorily. Corresponding Regulations have been made for Scotland (S.I. 1960 No. 1312, 3*d.* net).

Opencast Coal

The Opencast Coal (*Rate of Interest on Compensation*) *Order*, 1960 (S.I. 1960, No. 1883. 2*d.* net). The Opencast Coal Act, 1958, section 35 provides that interest shall be payable in addition to compensation in certain circumstances. This new Order increases the rate of interest from 4½ per cent. to 6¼ per cent., and revokes the Order made in 1958.

Library Notes

BINDING "THE CHARTERED SURVEYOR"

Members wishing to have volume 92 of *The Chartered Surveyor* bound should send it to The Co-operative Wholesale Society, Limited, Printing Works, Barbauld Street, Warrington, Lancs., accompanied by a remittance for 7*s.* 6*d.*

To enable the binders to handle the work expeditiously members are asked to send their sets as soon as possible. Sets of earlier volumes of *The Chartered Surveyor* (not the *Journal* or *Transactions*) can also be dealt with at that time.

The binders will have a supply of indexes.

INTERNATIONAL BIBLIOGRAPHY OF PHOTOGRAMMETRY

About four years ago the International Society of Photogrammetry decided that an international bibliography should be started and the International Training Centre for Aerial Survey at Delft agreed to organize it.

All the member societies of the I.S.P. abstract all articles on photogrammetry that are published in their own country and send the abstracts to Delft, where they are edited and published. As a recompense, all member societies who co-operate receive free copies of the bibliography.

The Institution and the Photogrammetric Society, as joint adhering members of the International Society, receive three free sets. One of these is now made available for reference in the library of the Institution, and arrangements for the holding of the other two are in hand.

The bibliography is in the form of a card index with two separate sequences, one alphabetical by author, the other classified by a special development of the section "Photogrammetry" in the Universal Decimal Classification.

The following subjects are included in the bibliography so far as they relate to photogrammetry :—

Aerial survey and mapping techniques.

Survey flight navigation techniques and survey navigation instruments.

Optics, photography, photographic materials, cameras, instruments, ground control.

Mathematics, electronics, automation.

Photo-interpretation techniques and their application: forestry, geology, soil survey, civil engineering.

Reconnaissance.

Research, education and international relations.

Aerial surveys contracted or carried out.

Other items as far as they are related to photogrammetry.

The organiser of the United Kingdom contribution to the bibliography is Dr. A. R. Robbins, B.SC., M.A. (Professional Associate), to whom the Librarian is indebted for the background information in these notes.

HISTORICAL COLLECTION

Two Russian atlases have been added to the collection.

Alex Vilbrekhsh's " Russükoi atlas . . . ", published in 1792, is printed entirely in Russian and contains 44 maps of the Russian empire (covering European and Asiatic Russia). There is in addition a map by P. Torson of the western part of Russia inserted at the back of the atlas. The scales, which vary from approximately 1:7 million to 1:17,000, are not given, but degrees of latitude and longitude are shown in the margins of each map. Relief is shown by the symbolic representation of hills, and boundaries have been hand-coloured.

The second atlas, which has no title page, consists of 34 maps of European and Asiatic Russia bound together, most of which are produced on the same sheet lines and may have been of a projected commercial publication. The majority of the maps were prepared by John Truscott, James Schmidt or by John Islenieff between the years 1770 and 1783. Degrees of latitude and longitude are shown in the margin in addition to linear scales, which vary from approximately 1:7 million to 1:76,000. There are four large scale plans of the area around St. Petersburg and Lake Ladoga which show the areas occupied by woodland, heath and cultivated land.

The Library has also been fortunate in acquiring a rare German work on measuring, the short title of which is :—

Jacob Leupold. Theatrum Arithmetico-Geometricum . . . Leipzig 1727, with supplement 1739 bound in. It is a good folio copy containing a total of 83 copper engravings on folding plates.

A wide range of measuring instruments are described and illustrated in great detail and include slide rules, calculating machines, drawing instruments, squares, quadrants, astrolabes theodolites, pedometers, waywisers, clinometers, and other early surveying instruments.

Correspondence from Members

ENTRY INTO THE PROFESSION

Dear Madam,

To date I have seen little reference on this important matter to the question of remuneration. We are in competition with all walks of life to obtain new members. I feel we are not making our profession financially attractive enough to complete with some other professions, or much of industry. There was a time when the professions had the attraction of security, and status but to-day this has lost a lot of its old importance. Young people want to know what they are likely to earn when they become chartered surveyors, and when they hear, many decide to go elsewhere.

My experience is limited to the Valuation Division, where the remuneration of those engaged in estate agency is largely satisfactory, certainly in London. However, it is not possible to pay assistants employed on " professional " work nearly so generously. Professional assistants must be qualified and experienced to be really useful, and generally by the time they are 40 they can only expect to earn in London what an unqualified man employed on estate agency work can earn at 25 to 30 years.

While we are considering the education of students, I think we should also consider whether the scale of charges for " professional " work does not require a substantial general uplift. Unlike some other professions, I believe that the Institution takes no interest in members' salaries, but by raising charges, private firms will be able to pay their qualified assistants more, and the Government and local government bodies will gradually have to follow suit.

Yours faithfully,

DAVID MORRIS.

Manor House, 21, Soho Square, London, W.1.

METHODS OF MEASUREMENT

Madam,

Mr. G. L. Boedeker's problem as to " which method of measurement " (the subject of a letter published in the September issue of *The Chartered Surveyor*) could well be world-wide. It seems that most overseas quantity surveying circles over a certain size establish their own method of measurement (written or unwritten) and a review of those I have seen raises two immediate observations :—

(*a*) Why do they share a common trend in the simplification of the Standard Method of Measurement ?

(*b*) Why must they all differ in relatively minor detail and presentation other than that dictated by local conditions ? (In fact, local differences from place to place would seem to be relatively few, and many of these might well be common to most places overseas).

I suggest the principal answers might be :—

(i) Overseas estimating has often been less scientific than in the United Kingdom and warrants less detail (although this situation can change).

(ii) Many seem to think the current Standard Method unnecessarily complicated, and find that providing for overseas differences is an excellent excuse for writing their own (with varying degrees of success).

(iii) A wish to have " one of one's own."

In fact, we are having to prepare our own in Jamaica. Based on Standard Method it isn't taking very long, and is proving a very enjoyable task. I can't help feeling, however, that ours is largely wasted effort when other groups throughout the world must already have gone through exactly the same thought processes. We like to think that we have a number of good ideas, and that our final product will be as neat, logical and consistent as we can make it, but are nevertheless not to know that better ideas don't already exist elsewhere.

Bearing in mind that the die is already cast for many overseas Methods and for the proposed revision to Standard Method, and without detailed knowledge of the latter, it is difficult to forsee the practical value of appealing. Like Mr. Boedeker I would like to see it done, preferably with a view to the Institution issuing a " Model Overseas Standard of Measurement." This could be adopted as required (subject to local amendments), thus reaping the advantages of a printed and official Method for those still without, as well as uniformity and optimum quality. With an altered title, it might well be suited to supersede certain Codes and Methods in the United Kingdom.

With reluctance I shall not put forward any technical suggestions in your columns, as this would occupy too much space.

Yours faithfully,

A. W. BERRYMAN.

15, Constant Spring Road, Kingston, 10, Jamaica.

New Members of the Institution

The following have been elected new members of the Institution in 1960.

As Fellows

Crockett, Ronald Alexander
Hall, Horace John

As Professional Associates

Abell, Eric
Acquaye, Ebenezer
Adair, Brian
Adams, Reginald Charles
Air, Laurence Anderson
Aitchison, Ian Alexander
Alcock, Anthony John Mulholland
Allan, Arthur Laidlaw
Allanson, James Joseph Sutton
Allen, John Edward Albert
Allen, Richard Forsyth
Allison, James Bigham
Anderson, Ian Thomson
Anderson, John
Anderson, John
Anderson, John Brian
Anderson, Michael Peter
Andrews, John Cameron
Angus, Douglas Alexander James
Appleby, Allan
Appleyard, Robert Philip
Arnold, Frederick Thomas
Arthur, Leslie John
Ash, Peter Francis
Asher, James William Austin
Ashford, Bryan
Atkins, David Atherton
Aubrey, Peter Glyn

Badman, Victo
Baillie, George Alexander
Baker, Brian James
Balch, Thomas Morton
Ball, Jeffrey Haywood
Ball, Peter
Ball, Peter Charles
Bamber, John Charles Kelway
Bamford, Laurence Frederick
Barbour, John Archibald
Barcroft, William
Barker, Peter Northcote
Barnes, John Denley
Barnett, Arthur
Batterbury, Michael Hugh
Beauchamp, Derek Malcolm Westgate
Bell, James Frederick
Benjamin, Joseph
Bennett, Anthony Edward
Beresford, Michael John
Bevan, Christopher Conn David
Bird, Stephen Christopher Kellam
Black, Donald Paterson
Blackman, Andrew Richard
Blair, David Farquhar
Blake, Kenneth Alan
Blankley, Roger Henry
Bletsoe, Christopher Thomas
Boakye, Andrew Kofi
Bowman, Edward Wade
Boyd, Bruce
Boyle, Charles Morton
Brackenbury, Charles Henry
Bramham, John
Braxton, Michael William
Brendon-Cook, John Lyndon
Brockie, Alexander
Brodie, John Hendry
Brown, Alfred
Brown, Kenwyn Alan Douglas
Brownlow, Paul George
Buckland, Frank James
Buckle, Philip James
Bull, Geoffrey Maurice
Bull, Peter Anthony
Bullock, Robert Lee
Burns, John
Burrell, Anthony John
Burrows, Anthony John
Buxton, Robert Hugh

Caldwell, Iain Robert
Canavon, Brian Alfred
Cantley, William Robert Donaldson
Carmichael, Ian Duncan
Case, Charles Leo
Casling, Michael George
Cassidy, Christopher Barry
Chadwick, Robert Vincent
Chan Wan Hang
Chandler, Douglas Mackenzie
Chantler, Harry
Chapman, Walter Robert
Charnock, Francis Bede
Cheape, Ronald David
Chesters-Thompson, Stephen
Clark, Alexander William
Clark, Desmond William
Clark, John Gilchrist
Cleaver, Michael Trevor
Clement, Roger Geoffrey
Clutton, Nigel Hugh
Cochran, Ian Murray
Cochrane, John Ronald
Cocker, Arthur
Colbert, Henry Edward Charles
Cole, Bryan James
Cole, Frank Ronald
Conlon, Hugh Patrick
Cooke, Geoffrey Brian
Cooke, Robert Harold
Coombes, Roy Trevor
Corkill, Dennis Edward Corlett
Corser, Paul Jeremy
Cosstick, Anthony
Cousins, Brian Lawrence
Cowell, Edwin
Craven, John Barry
Crombie, Hugh Houston
Crossley, John Hamer
Crouch, Peter James
Crystal, Lindsay Scott
Cundall, Terence John
Curtis, John Anthony English
Cuthbert, John Alwyn

Dack, David Graham Hooten
Darroch, Peter Frederick
Date, Michael Christopher
Datta, Krishan Lal
Davidson, David Kellock
Davies, James Rawson
Davies, Peter Morgan Wynne
Davies, Trevor Malcolm
Dean, John Trevor
Devers, Joseph
Dew, Michael Lewis
Deyes, John Alan
Dick, Donald Marshall
Dickie, Alan
Dobson, Michael Edward
Dominy, Ronald Charles
Dore, Patrick Alexander
Drewett, Raymond Stephen
Driver, Richard Malcolm
Duncan, Alastair Dewar
Duncan, Angus
Duncan, Laurence Raymond
Dunlop, Derek John
Dunmore, Eric
Dunner, John
Dwelly, Michael John

Eales, Roy Martin
Eames, Frederick George
Easter-Bruce, Anthony Petre
Edwards, Gordon Henry
Edwards, Harry
Eldred, Keith Wiltshire
Elford, John Michael
Ellison, John Cormack Craig
Else, Donald Arthur
Engel, Eric Ronald
Essex, Anthony Ronald
Evans, David Barry
Evans, David George Wheeler
Evans, Derek William

Farquhar, James Colin
Faulkner, Peter John
Faulkner, Raymond Godfrey
Ferguson, Charles Deuchar
Ferguson, Collin James
Ferguson, Daniel Scott
Filshie, David McRae
Findlay, John Geddes
Finney, Brian Sherlock Stuart Girvan
Finnie, James George
Fish, Kenneth Scott Guild
Fisher, Michael John
Fleetwood, John Paynter
Fleming, Albert John
Fleming, James Alistair
Fletcher, Brian Haig
Fletcher, John
Flint, Arthur Patrick
Folmer, Peter John
Forbes, Alexander Scott
Forrest, Ronald Leslie
Fraser, Gordon Mackenzie
Fraser, Kennedy Martin
Fraser, Stephen Richard
French, Colin Mark William
Frith, George Eric
Froome, John Hope
Frost, Douglas Matthew Rowland
Fuller, Brian John
Fyfe, William McLay

Galpin, Reginald Donald
Gardiner, Richard Trevor
Gardner, Peter Francis
Gater, Michael James Edwin
Gibbon, Edward
Gibbs, Ian
Gibson, Charles
Giles, Peter Brian
Gillies, Alexander
Godfrey, Christopher John Wolde
Goh, Mia Hoon
Goodenough, Bernard Thomas
Goodger, Brian
Goodman, Eric Ernest Leonard
Gough, James
Grafton, John Michael
Graham, James
Grassick, Grant Sutherland
Gray, David Simon
Gray, George Brian
Gray, Hugh Gold
Gray, John
Green, Anthony Victor
Green, Howard Stuart
Griffin, Eric John
Griffith, Iorwerth Llewelyn
Griffiths, William Howard
Groom, Harold John
Gross, Bryan John Robert

Haigh, Raymond Francis
Hale, Trevor John
Halliday, Archibald Robert
Halstead, Alec Edmund
Hardie, Glenn Mackintosh
Hardy, Alec Edgar
Harrison, Adrian
Harwood, Laurence Hardy
Hawkins, John William
Hayden, David Alfred
Hearle, Brian Richard
Heath, Mrs. Margaret Harriet
Heaton, John Brian
Henderson, Peter James
Heneghan, Bernard Edward
Heslop, David Ian
Hodgon, Derek Owen
Hogg, John Duncan
Hopton, Sydney Thomas
Howell, Steven Read
Huish, Brian Gwynn
Hunter, Angus John
Hussey, James Peter
Hutton, John McEwan

Iles, Michael Henry
Ind, Ronald Albert
Irving, John
Izatt, Noel Wilson

Jackson, Michael John
Jaggard, Hilary Lorence Arthur
James, Brian Leslie
James, John Nigel Courtenay
Jamieson, William Alexander
Jelley, Anthony Devene
Johnson, Alan Graham
Johnston, James Nichol
Johnston, Norman Gill
Johnstone, David Alistair
Jolly, James William
Jones, Geoffrey Alan
Jones, Graham Keith
Jones, John Bruce
Jones, Lester Frederick Alan
Joscelyne, Brian Kent
Jowett, Christopher
Judge, John Terrance

Kamm, Martin David
Kat, Jacob
Kaufmann, Ian Searle
Kennedy, Thomas Neil
Kenyon, Ronald Cooper
Kerr, Hugh Ferguson
Kinlay, Gordon George
Kudish, Norman Harvey
Kydd, William Binnie

Lackie, Michael Ranger
Ladd, Rex
Laing, John Gordon
Larner, Patrick Sylvester Edmund
Lautenbach, Colin Robert
Laws, Anthony Roger Joseph
Lean, Miss Jennifer

Lee, James
Leith, Terence Graham
Lepper, Lancelot Millen
Leslie, Ronald
Linklater, John Malcolmson
Lister, Frederic Mervyn
Lockhart Smith, David Banister
Lofting, George Michael
Love, Miss Jean Dorothy
Love, John
Lowe, Michael Brian
Lowe, Stuart Clark
Lucas, Ronald William Gibbons
Lund, John Brian
Lygate, James Hartman
Lyons, Joseph William

McAuley, Michael Cameron
McCreeth, Paul
McCuaig, Robert William
McDonald, Iain Anderson Wright
McEvoy, James Dudley
Macindoe, Malcolm Kirkwood
Mackay, Alasdair Landsburgh
Mackinlay, Michael Shaw
McLean, Malcolm James
McNeill, John Wood
McPhie, Douglas Simmons
McSkimming, Vincent Alistair
Mack, Robert Charles Frederick
Mackrill, Douglas Charles
Magennis, Donald Michael Thomas
Mallinson, Michael Heathcote
Maloney, Hugh
Mann, Robin Haslam
Mann, Robert Stevenson Gammie
Manning, David Victor
Mansfield, Ronald Robert
Marriage, John Edward
Marsh, David William
Marshall, Raymond
Martin, David Robert
Martin, James Gordon
Mason, Derek Stevens
Masson, George Garden
Matthews, Stanley Desmond Frederic
Meadowcroft, James Joseph John
Meggitt, Gordon Westall
Mennie, Cyril Herbert
Middleton, Alan George
Midgen, Selwyn Isaac
Millard, Rollo William Lewis
Miller, Ian Currie
Milne, John
Mitchell, John James
Mittens, Donald
Monaghan, John
Montgomery, James David
Moore, Michael John
Morgan, Eric James
Mosley, Keith
Muir, Walter
Mumford, Richard Guy Russell

Munn, Richard John
Murant, Alan Richard

Neale, Michael James
Newell, Clive Anthony
Newman, John
Nichol, James Alastair
Nicholls, Donald William
Nicol, James George
Noble, David John Reginald
Nolan, Sean Joseph Patrick
Norman, Huntley John
North, Robin John

Oates, Maurice John
O'Halloran, Timothy Joseph
O'Hara, Thomas
O'Sullivan, Francis Edward
Owen, John Mervyn
Owen, Maurice Anthony
Owushu, Fred
Oxley, Jeffrey

Padmore, Peter Francis
Page, Arthur Thomas
Palmer, Owen Antony
Pannell, Peter William
Parr, Geoffrey Frank
Patchett, Peter
Pattinson, Barry Keith
Paxton, Gerald Anthony
Pearse, Cecil Dennis
Pearson, Christopher Henry Garencieres
Peat, George Borthwick
Pennan, James Cameron
Phelps, Ian Corbett
Pickering, Geoffrey
Pickles, Alan
Pierce, Dennis Raymond
Pilgrim, Roger Geoffrey
Piper, Michael Albert
Pollard, Ronald Trevor
Porter, John Ewin
Powell, Hadyn James
Pyart, Geoffrey Alan

Quayle, Donald Alfred
Quick, John

Radley, Leonard Eric
Rae, Geoffrey
Rae, Robert Purvis
Randall, Graham Sidney
Ratcliffe, Howard
Rawson, Kenneth
Reader, Donald Lawrence
Redfearn, Benjamin James
Rew, Brian Robert
Richardson, Charles Edward
Richardson, Michael John
Riddell, Robert James Johnston
Riordan, John Joseph

Ritchie, Crawford
Roberts, Frank Lionel
Robertson, Allstair Stewart
Robertson, Brian Edward Michael
Robertson, Douglas Ernest Gordon
Robertson, Douglas Ian
Robertson, James
Robinson, William Stanley
Robson, Thomas Norman
Rogers, Alan Charles
Rollinson, John Michael
Rookes, David Frederick
Rose, Charles James
Rose, Ian William
Ross, Norman
Rowe, Martin William

Sadique, Mohamed Haniffa Joufferus
Sadler, Ronald Ryan
Sandell, Michael Charles Caines
Sansom, Kenneth John
Scarlett, Arthur Robert
Schauerman, William David
Schofield, Roger Haygarth
Scott, Christopher
Scott, James Hamilton
Scott, Richard
Sellors, John Barry
Senior, John Anthony
Shadbolt, Charles Herbert
Shanley, Liam Finbarr
Shaw, Ian
Shaw, Peter Maitland
Shaw, Robert Oborn
Sheppard, Brian Philip
Sheppard, Michael John
Shrive, John Bellamy
Simister, Ronald Gordon
Simpson, James Alexander
Sinclair, Kenneth Webster
Singer, Andrew Morton
Skidmore, Harry
Smith, Clifford George
Smith, Douglas John
Smith, James
Smith, John Inglis
Smith, Michael Duncan
Smith, Robert James
Smith, William Thomas
Southworth, Alan Cuthbert
Sparrow, David Charles
Spiers, Robert Crawford
Spencer, Percy
Spiers, Keith Arthur
Stackpoole, John
Stanford, Clive Norman Austin
Staples, Bryan Anthony
Starks, Martin Cowling
Steele, Norman John
Stembridge, Arthur Frederick
Stevens, Norman
Stevenson, John Dowler
Stevenson, William Cambell

Stewart, Alastair Aitchison
Stewart, Dennis William Holmes
Stiffin, Ronald Edward
Stolkin, Leslie David
Stone, John James
Stretton, Ivan Edward
Struthers, David Mitchell
Sumner, John
Sunter, Stephen Killoch

Tamagni, Thomas Benjamin
Tancock, John Clive
Tarr, Hubert Frederick
Tasker, Ian Barrie
Taylor, Michael David
Taylorson, John Albert
Testa, John Ernest
Thomas, David Fernley
Thomas, David John
Thomas, Gareth Brynmor
Thompson, Michael James
Thomson, Alexander Buchanan
Thorburn, James Robertson
Thorne, Neil Gordon
Thorp, Neil Thomas
Thursfield, Thomas Matthew
Townsend, Alfred John
Tsang Hoy-Lun, David
Tudor, David John
Tunstill, Alan
Tyers, Laurence William
Tyler, Norman Oliver
Tyler, William Robert
Tyrrell, Kelvin Brian

Vernham, Ronald Douglas

Wallace, William Andrew Alexander
Ward, Frederick Herbert
Wardle, Christopher
Warren, Derek Sidney
Watson, Robert Bruce
Wheeler, Brian Gilbert
Wheeler, Derrick Montague
Wheeler, Frederick Edmund
Whitaker, Robert George Bertram
Whitfield, James Walter
Whitrod, Raymond Jack
Wickham, William Giles
Wild, Glyn
Wilson, David Martin
Wilson, Geoffrey Joseph
Wilson, James
Wilson, John Murray
Wood, Ernest
Wood, James Philip
Wood, William Thornley
Woodford, Terence Walter George
Wortley, Edward William
Wright, Brian Denis
Wylie, Leonard

Young, Henry Nicholas